



Research Product 98-17

**Direct and Lead Units During
Preparation for the Battle
(Battlefield Function 19)
as Accomplished by a
Direct Support Field Artillery Battalion
Volume 1: Function Analysis**

19980511094

Robin Elder
BDM Federal, Inc.

DTIC QUALITY INSPECTED 2

January 1998

Armored Forces Research Unit

U.S. Army Research Institute for the Behavioral and Social Sciences

Approved for public release; distribution is unlimited.

U.S. ARMY RESEARCH INSTITUTE FOR THE BEHAVIORAL AND SOCIAL SCIENCES

A Directorate of the U.S. Total Army Personnel Command

EDGAR M. JOHNSON
Director

Research accomplished under contract
for the Department of the Army

BDM Federal, Inc.

Technical review by

Dorothy L. Finley, ARI AFRU
May Throne, University of Louisville

NOTICES

FINAL DISPOSITION: This Research Product may be destroyed when it is no longer needed. Please do not return it to the U.S. Army Research Institute for the Behavioral and Social Sciences.

NOTE: This Research Product is not to be construed as an official Department of the Army position unless so designated by other documents.

REPORT DOCUMENTATION PAGE

1. REPORT DATE (dd-mm-yy) January 1998		2. REPORT TYPE Final		3. DATES COVERED (from... to) July 1995 - July 1997	
4. TITLE AND SUBTITLE Direct and Lead Units During Preparation for Battle (Battlefield Function 19) as Accomplished by a Direct Support Field Artillery Battalion Volume 1: Function Analysis				5a. CONTRACT OR GRANT NUMBER MDA 903-92-D-0075	
				5b. PROGRAM ELEMENT NUMBER 0602785A	
6. AUTHOR(S) Robin Elder				5c. PROJECT NUMBER A791	
				5d. TASK NUMBER 2228	
				5e. WORK UNIT NUMBER R03	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) BDM Federal, Inc. 1801 Randolph Road, S.E Albuquerque, NM 87106				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) U.S. Army Research Institute for the Behavioral and Social Sciences ATTN: TAPC-ARI-IK 5001 Eisenhower Avenue Alexandria, VA 22333-5600				10. MONITOR ACRONYM ARI	
				11. MONITOR REPORT NUMBER Research Product 98-17	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution is unlimited.					
13. SUPPLEMENTARY NOTES Kathleen A. Quinkert, Contracting Officer's Representative					
14. ABSTRACT (Maximum 200 words): The purpose of the overall research program was to document the synchronization required by command and control tasks performed within the armored brigade, to include combat support and combat service support units. The immediate application of the documentation was to support developers of staff training in two related projects: Battle Staff Training System and Staff Group Trainer. The documentation was also intended to assist with the planning and execution of collective training. The documentation approach was to apply function analysis (FA) techniques for battlefield functions (BFs) in the Command and Control battlefield operating system. Thirteen FAs were developed for the brigade headquarters and four supporting units: direct support field artillery battalion, engineer battalion, forward support battalion, and air defense artillery battery. The FAs were revised through a formative evaluation process that included internal review and successive external reviews by combat training centers, proponent agencies, and a review council representing potential users of the FAs. The final products include the FAs, a user's guide, and assessment packages for the BFs. This report provides the FA and user's guide for BF 19 as performed by the direct support field artillery battalion.					
15. SUBJECT TERMS Structured Training Staff Training Multiechelon Training Training Strategy Functions Analysis of Functions Command and Control					
SECURITY CLASSIFICATION OF			19. LIMITATION OF ABSTRACT Unlimited	20. NUMBER OF PAGES 334	21. RESPONSIBLE PERSON (Name and Telephone Number) Kathleen A. Quinkert (502) 624-6928/3450
16. REPORT Unclassified	17. ABSTRACT Unclassified	18. THIS PAGE Unclassified			

Research Product 98-17

**Direct and Lead Units During
Preparation for the Battle
(Battlefield Function 19)
as Accomplished by a
Direct Support Field Artillery Battalion
Volume 1: Function Analysis**

Robin Elder
BDM Federal, Inc.

**Armored Forces Research Unit
Barbara A. Black, Chief**

U.S. Army Research Institute for the Behavioral and Social Sciences
5001 Eisenhower Avenue, Alexandria, Virginia 22333-5600

January 1998

**Army Project Number
2Q26785A791**

Education and Training Technology

Approved for public release; distribution is unlimited.

FOREWORD

One of the goals for the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) is to facilitate the development of training strategies that will serve the needs of the combined arms team today and into the 21st century. The indispensable foundations, the cornerstones, for meeting this goal are solid information and data bases. One such base is a set of comprehensive descriptions of how soldiers accomplish their missions. Many task descriptions have been developed where the focus is on activities within a particular Battlefield Operating System (BOS); these are often further narrowed to one BOS element within one echelon. What have been lacking are function analyses along with task descriptions that have a broader BOS perspective; one which focuses not only on intra-BOS relationships, but also the relationships of that BOS with other BOSs in accomplishing the overall mission. It is this latter perspective which is needed, for example, to define training requirements and strategies for combined arms operations.

The function analysis described in this report is a product of one of three efforts conducted under the ARI project, "Innovative Tools and Techniques for Brigade and Below Staff Training (ITTBBST)." The work in this part of ITTBBST is the fifth in a series of ARI projects directed at analyzing the vertical and horizontal synchronization required by combined arms operations. All of the projects have analyzed functions, previously labeled "critical combat functions (CCFs)" and now labeled "battlefield functions (BFs)." The previous projects analyzed: all BFs performed by a heavy battalion task force; a sample of seven BFs performed by an armored brigade; and the integration of fire support BFs as performed by an armored brigade and at echelons higher than brigade. The research in this project analyzed BFs in the Command and Control BOS. Separate coordinated analyses of these BFs were performed for the armored brigade headquarters and four types of supporting units, one of which is the Direct Support Field Artillery Battalion.

The analyses developed in the project have been used in the development of staff training in related projects within the ITTBBST program. In addition, U.S. Army Training and Doctrine Command (TRADOC) representatives have identified a variety of applications by TRADOC training and other developers as well as potentials for collective training management.

ZITA M. SIMUTIS
Technical Director

ACKNOWLEDGMENTS

This analysis has benefited from considerable dedicated effort on the part of many persons. The efforts of a few of these many persons are specifically and gratefully acknowledged here. An especially key person was MG (Ret) Lon E. Maggart, Commanding General of the U.S. Army Armor Center (USAARMC). Prior to and during the conduct of this effort, he contributed greatly to definition of training needs and concepts in support of Force XXI. He saw that battlefield functional analyses could provide a valuable foundation for Force XXI training development efforts; hence, MG (Ret) Maggart strongly backed these efforts.

COL G. Patrick Ritter and LTC Marvin K. Decker, acting in accordance and agreement with MG (Ret) Maggart's vision, vigorously pursued battlefield function analysis efforts and persevered in ensuring their application to Force XXI training developments. COL Ritter, Director of Directorate of Training Development and Doctrine (DTDD) at USAARMC, and LTC Decker, Chief of DTDD's Force XXI Training Program office, ensured implementation of necessary actions, and the participation of military subject matter experts and potential users of function analysis products as needed to assure quality outcomes.

Among many participants in performing the analyses themselves, and validating their integrity and validity, were members of the U.S. Army Field Artillery School (USAFAS), DTDD at USAARMC, and Operations Group at the National Training Center (NTC). Final recommendations and approval of these analyses were provided by proponents and users constituting the Force XXI Review Council. Members of the Review Council included: COL G. Patrick Ritter and LTC Marvin K. Decker, USAARMC; LTC James R. Harrison, U.S. Army Armor School; LTC David M. Annen, USAFAS; LTC Larry Newman, U.S. Army Air Defense Artillery School; COL Philip Federle, U.S. Army Engineer School; LTC Roger F. Murtie, National Training Center; LTC Gilbert Pearsall, Joint Readiness Training Center; COL Roger W. Jones, TRADOC Program Integration Office-Army Battle Command System; and COL Robert J. Fulcher, 29th Infantry Regiment.

The research for and preparation of this report benefited immeasurably from the assistance provided by members of the U.S. Army Research Institute. Specifically, the authors would like to acknowledge Ms. Dorothy Finley for serving as a peer reviewer for the product. She offered constructive comments that have improved both the content and style of the report. Also, special recognition is given to Ms. May Throne, a Consortium Research Fellow from the University of Louisville assigned to Fort Knox, and Ms. Lori Cracknell. Their never ending efforts to assist in the formal production of this report will not soon be forgotten.

Finally, a large debt of gratitude is owed to BG (Ret) Bill Mullen for guidance and support on this product. He provided the program management that ensured this product is well "synched" with past products as well as the Army of the future. His continual attention to details have provided the Army with a truly unique document.

DIRECT AND LEAD UNITS DURING PREPARATION FOR THE BATTLE (BATTLEFIELD
FUNCTION 19) AS ACCOMPLISHED BY A DIRECT SUPPORT FIELD ARTILLERY
BATTALION

CONTENTS

	Page
OVERVIEW	1
PURPOSE AND OUTCOMES.....	1-1
FLOW CHARTS.....	2-1
TASK LINKAGES TO OTHER BF _s /UNITS	3-1
KEY PARTICIPANTS BY TASK	4-1
KEY INPUTS AND OUTPUTS	5-1
TASK LIST SUMMARY	6-1
TASK LIST	7-1
TASKS ORGANIZED BY OUTCOMES	8-1
LESSONS LEARNED	9-1
GATE TASKS	10-1
REFERENCES.....	11-1
APPENDIX A. INDEX OF BRIGADE COMBAT TEAM BATTLEFIELD FUNCTIONS.....	A-1
B. STRUCTURE OF BATTLEFIELD FUNCTIONS RELEVANT TO BRIGADE OPERATIONS	B-1
C. BF _s LISTED BY ECHELON.....	C-1
D. USER'S GUIDE.....	D-1
E. ACRONYMS AND ABBREVIATIONS	E-1

LIST OF FIGURES

Figure 1. Depiction of a task contributing to the accomplishment of another task.	2-1
2. Depiction of the relationship between tasks and subtasks.....	2-2
3. Depiction of placement of the box reflecting information input and output	2-2
D-1. Assessment worksheet for heavy brigade performance of BF 18	D-7
D-2. Overview of tasks by outcomes for BF 18 FA	D-9
D-3. Example of supporting tasks extracted from the Task List of BF 18 FA.....	D-10
D-4. Excerpt from References component of BF 18 FA	D-10
D-5. Excerpt from Lessons Learned Integrated into the Task List component of BF 18 FA.....	D-11
D-6. Excerpt from Key Participants by Task component of BF 18.....	D-11
D-7. Excerpt from Key Inputs and Outputs component of BF 18 FA.....	D-13
D-8. Excerpt from Gate Tasks component of BF 18 FA	D-14
D-9. Extract from CATS for battalion task force	D-15

OVERVIEW

The results of the Army Research Institute's (ARI) examination of battlefield functions (BFs) relevant to a heavy (armored or mechanized infantry) brigade combat team's combined arms operations are in two volumes. Volume 1, Function Analysis, identifies and describes various components necessary to accomplish the function. The components were selected based on their relevance to a unit trainer's interests. Volume 2, Assessment Package, is an assessment aid. It describes performance measures based on the purpose, outcomes, and tasks supporting the outcomes identified in the Function Analysis (Volume 1).

This overview provides necessary and relevant information concerning the analysis of BF 19, Direct and Lead Units During Preparation for the Battle, as performed by a Direct Support Field Artillery Battalion.

Tables of Organization and Equipment. This BF is designed for the cannon battalion organized under the following tables of organization and equipment (TOE):

- a. 06365H000 Field Artillery Battalion, 155mm Self-Propelled, Armored/Mechanized
- b. 0365L100 Field Artillery Battalion, 155mm Self-Propelled, Heavy Division
- c. 0365L200 Field Artillery Battalion, 155mm Self-Propelled, Heavy Division
- d. 0365L300 Field Artillery Battalion, 155mm Self-Propelled, Heavy Division

This function analysis (FA) is a product of the process of developing a training strategy for the field artillery battalion. It is the second of three BFs (Plan, Prepare, Execute) which compose the command and control (C2) battlefield operating system (BOS). The analysis reflects all the tasks, participants, products, and processes required by the FA battalion to achieve the outcomes necessary to prepare for combat operations in compliance with the commander's concept and intent.

A battlefield function is defined as processes or activities occurring over time that must be performed to accomplish a mission(s) or supporting critical tasks. It provides task integration, combined arms interaction, and inter-Battlefield Operating Systems (BOSs) linkages.¹

The synchronization of BFs provides commanders at any echelon with a definable outcome that materially affects the battle. This task analysis addresses the function of preparing for battle at the battalion level. Planning that is conducted during the preparation and execution battle phases will use the military decision-making process (MDMP) addressed in BF 18 (Plan for Combat Operations), most probably under time constraints. The tasks of this BF are initiated by the battalion upon the issuance of the battalion operations order (OPORD) (Field Artillery

¹ The term "Battlefield Function (BF)" was designated by the U.S. Army Training and Doctrine Command (TRADOC) in September 1996 to replace "Critical Combat Function (CCF)." At the same time, the term was redefined. TRADOC also renamed "task analysis" (TA) to "function analysis" (FA).

Support Plan) and the subsequent confirmation briefs by the battery commanders and ending at the beginning of execution of the mission (BF 20).

This analysis depicts the battalion collective tasks necessary to prepare for the conduct of operations by the field artillery battalion in direct support of a heavy brigade. These collective tasks address those performed by the battalion commander and his staff who normally participate in the battalion preparation for combat.

The battalion commander continuously assesses the battalion's situation based on his knowledge of his unit's operations plan and changes to the situation since he approved the battalion OPORD. He appraises the information received through his command, control, communications, and intelligence (C3I) system and/or by direct observation of the battalion's preparation for the mission. His visualization of the state of the battalion's preparation is largely a process of synthesizing the situation from what he sees and what others see and report to him about the battalion, and what is reported about the enemy, the terrain, the weather and so forth (i.e., METT-T). He will never have all the facts. His judgment on the preparedness of the battalion and actions he must take to change or sustain preparation tasks are based on the significance he attributes to information he receives and the conclusions he draws from it. The battalion commander also receives recommendations from higher headquarters, subordinate/supporting commanders, and his staff.

The battalion commander leads the battalion through his personal presence. The commander "monitors, plans, and directs" to ensure that the battalion can achieve the desired endstate and his intent. The commander, staff, and subordinate/supporting leaders set the conditions for the commander's concept and implementing details to be prepared, back briefed, and rehearsed prior to execution. The plan is continually analyzed as mission, enemy, terrain, troops, and time available (METT-T) changes to determine its validity. The commander performs his role in the "monitors, plans, and directs" process by providing information to and receiving information from higher, adjacent, and subordinate/supporting units, assessing information changes, and by appraising plans and future operations in light of changes to the situation.

The planning phase (BF 18) resulted in an OPORD that articulates the commander's concept and implementing details. The preparation phase is used to set the conditions for the concept to be executed. The commander and his staff continually monitor the validity of the concept through the use of "running" estimates and information responding to the commander's critical information requirements (CCIR). The commander's concept and the battalion OPORD may require refinement due to METT-T found in new information and intelligence collected in support of the CCIR, new guidance from the brigade commander, and the status of the battalion preparations and capabilities.

The commander assesses new information to determine its impact on the concept and plan, and then comes to a decision to leave the plan as it is, refine it, or make radical changes to it. Decisions to leave the plan as it is require no additional measures. Decisions to refine the

plan and concept must be implemented through the issuance of fragmentary orders (FRAGOs). In the event that the plan and concept must be drastically altered in order to achieve the desired endstate and intent, the commander uses the MDMP to develop new plans. Depending on how much time is available to the battalion, the commander may have to modify the process. The MDMP outlined in the 1993 publication of FM 101-5 "draft" is the basis of the processes described in this analysis. At the time of writing this analysis, the Command and General Staff College, proponent for FM 101-5, Command and Control for Commanders and Staff, is in the process of rewriting the draft manual. The function analysis recognizes the decision by the Commanding General, Combined Arms Center, that there is only one MDMP and that commanders in the field will have to modify the single process based on situation constraints. The authors coordinated continuously with the Command and General Staff College to ensure that doctrine reflected in this analysis is accurate and current. However, information reflected in the recently published FM 101-5 will most likely require minor modification of this analysis. The currency of this analysis will also be affected by changes to unit capabilities such as the additional technology (e.g., information systems), now in different stages of fielding.

The MDMP performed under time constraints has been addressed for each task. Although these procedures can be used under any planning circumstances, they most commonly would be used by the battalion commander and staff when time for planning is short (such as when faced with the need to issue a FRAGO during the battle). As will be seen, MDMP does not omit steps; procedures to reduce the time required to conduct planning are suggested in this task analysis.

This analysis also reflects current and emerging Army doctrine based on FM 71-3, The Armored and Mechanized Infantry Brigade, January 1996, and its portrayal of the decision-making process. The MDMP outlined in the 1993 publication of FM 101-5 "Draft" is the basis of the processes described in the task analysis. Planning associated with the development of a FRAGO is discussed in both this task analysis and the task analysis for BF 20, Direct and Lead the Battalion During Execution of the Battle.

Whatever his decision, the battalion commander must ensure that it is implemented. He achieves this through the efforts of his subordinate/supporting commanders and his staff, as well as through his own supervision. He directs the battalion during unit visits, backbriefs, and rehearsals to verify that his intent is understood and that all preparations support achieving his intent.

The staff supports the battalion commander by collecting information, assessing and evaluating the impact of new information, and providing information and recommendations. The battalion commander uses his staff to coordinate and supervise execution of his decisions. The battalion S3, as the director of the battalion staff, ensures that information is shared throughout the staff and identifies gaps in information and coordination which require additional staff work.

Planning associated with the development of a FRAGO will be discussed in both this task analysis and that for BF 20, Direct and Lead Units During Execution of Battle.

An effort was made to identify specific task titles taken directly from the appropriate Army Training and Evaluation Program - Mission Training Plan (ARTEP-MTP). The wording of each task in this analysis is sometimes a direct quote from the MTP. Generally the wording of the tasks is an integration of tasks and requirements derived from ARTEP-MTPs, applicable Field Manuals (FMs), and other related documents. Those tasks not taken from the ARTEP-MTPs are: a) derived titles that may apply only to a part of an ARTEP-MTP subtask or some other element of the ARTEP-MTP; b) multiple subtasks from several different, but related, tasks; c) tasks that are not directly stated in the ARTEP-MTP, but are implied by other tasks or requirements in an applicable FM or other related document; d) tasks derived from Center for Army Lessons Learned publications; e) tasks developed during coordination visits with TRADOC proponent schools, U.S. Army Forces Command (FORSCOM) units, and the Combat Training Centers; or f) performance requirements considered necessary based on experience of the analyst.

The analysis includes digital tasks extracted from the appropriate ARTEP-MTP. These tasks are, in some cases, superseded by introduction of new versions of automated systems (e.g., improved fire support automation system (IFSAS)/advanced field artillery tactical data system (AFATDS)). The documentation of procedures related to new systems have not been approved or included in the training development database. Tasks related to superseded systems have been included to facilitate revisions as further documentation becomes available. A requirement for minor modifications of this analysis is anticipated when the new ARTEP 6-115-MTP is published.

PURPOSE AND OUTCOMES

This component identifies what the battlefield function (BF) is supposed to accomplish overall, which we term as the purpose. This component also identifies the endstates or bottom line results necessary to achieve the purpose, which we term outcomes. As a consequence, this component of the analysis defines the endstates that performance of the tasks will accomplish.

PURPOSE

To provide command, leadership, and control of the direct support (DS) field artillery (FA) battalion (Bn) during the preparation phase to set conditions to accomplish the brigade mission within the division commander's (Cdr's) intent.

OUTCOMES

1. DS FA Bn command posts (CP) maintain continuous communications with higher, adjacent, and subordinate headquarters.
2. The Bn Cdr, staff, and other key individuals within the DS FA Bn receive, evaluate, and process timely and accurate information on the adherence to timelines and quality of battle preparation.
3. Tactically sound recommendations are developed and critical information is communicated by the Bn staff and subordinate leaders.
4. Sound (feasible, suitable, acceptable) decisions are made by the DS FA Bn Cdr and others within the DS FA Bn.
5. Affected units and personnel receive relevant direction, changes, and refinements to plans in time to perform troop leading procedures and required preparation
6. Subordinate leaders demonstrate an understanding of the critical elements of their own mission and mission essential tasks, the DS FA Bn mission, and the Bn Cdr's intent.
7. Soldiers and units are disciplined and motivated to accomplish the mission.

FLOW CHARTS

This component provides a graphical/pictorial description of BF tasks as they are sequenced within the framework of tactical battle phases (e.g., planning, preparation, execution). The purposes of this component are: to describe the flow of tasks during each battle phase; to describe vertical task linkages (to higher and lower echelon units) and horizontal task linkages (to other BF tasks for the echelon being analyzed); and to depict information input and output which affect each task. Although the sequencing of tasks throughout each battle phase is intended to reflect the flow of tasks, tasks may be performed concurrently or may overlap with preceding or subsequent tasks.

Each echelon is described by the echelon on the left of the flow chart; a horizontal line depicts the flow of tasks by sequence, reading left to right. The horizontal line for the echelon being analyzed is thicker than all other echelon horizontal lines.

Tasks from the BF task list are applied to the echelon line in the sequence in which they occur. The tasks are depicted in a task box. Inside and to the upper left of each task box is placed the task number of the appropriate task as listed in the task list.

The linkages of tasks, both vertically and horizontally, are depicted with lines. Arrowheads are placed on lines to depict linkages or interaction with other tasks. The linkage or interaction between these tasks is detailed in the task list.

Figure 1 illustrates the battalion (Bn) or battalion task force (Bn TF) task contributing to or otherwise supporting the brigade (Bde) task.

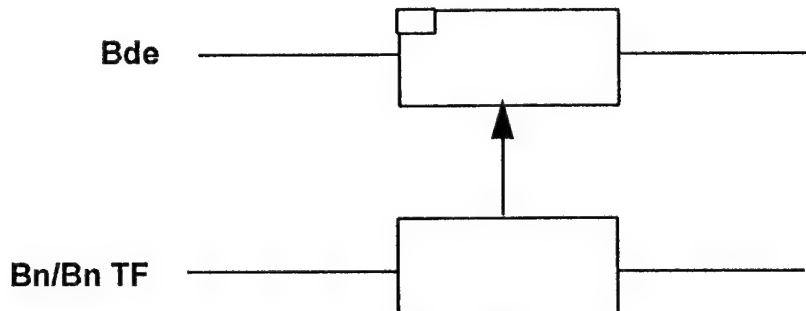


Figure 1. Depiction of a task contributing to the accomplishment of another task.

Lines with no arrowheads reflect a task and its subordinate (sub)tasks. Figure 2 illustrates this association.

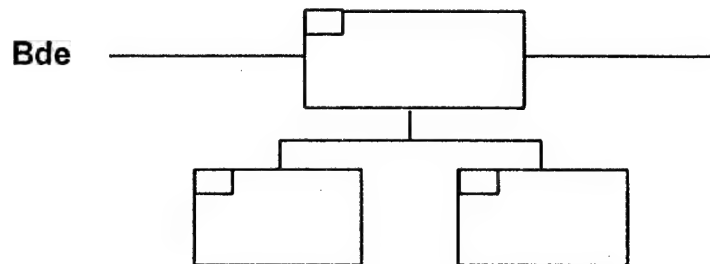


Figure 2. Depiction of the relationship between tasks and subtasks.

Inputs and/or outputs, as contained in the “Key Inputs and Outputs” component (section 5) of this BF function analysis (FA), are also reflected on the flow charts. The relevant input and/or output letter listed in the “Key Inputs and Outputs” component is listed in a box on the outside upper right of the task. Relevant information input for each task is depicted to demonstrate information which is required to perform the task; output information is that which is produced as a result of performing the task. Figure 3 illustrates how information input and output are depicted.

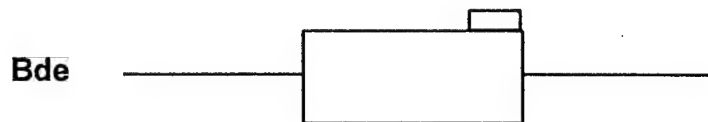
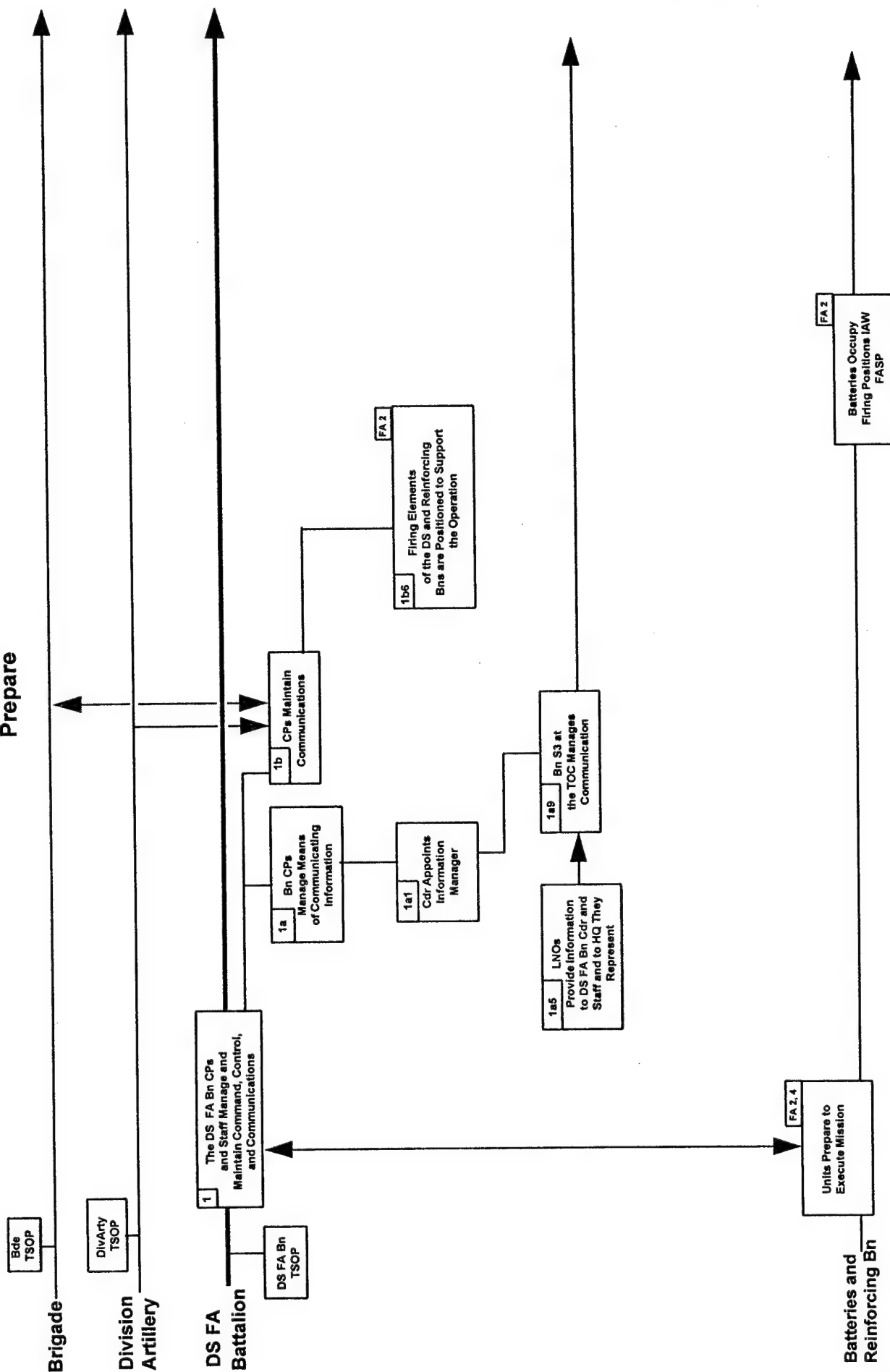
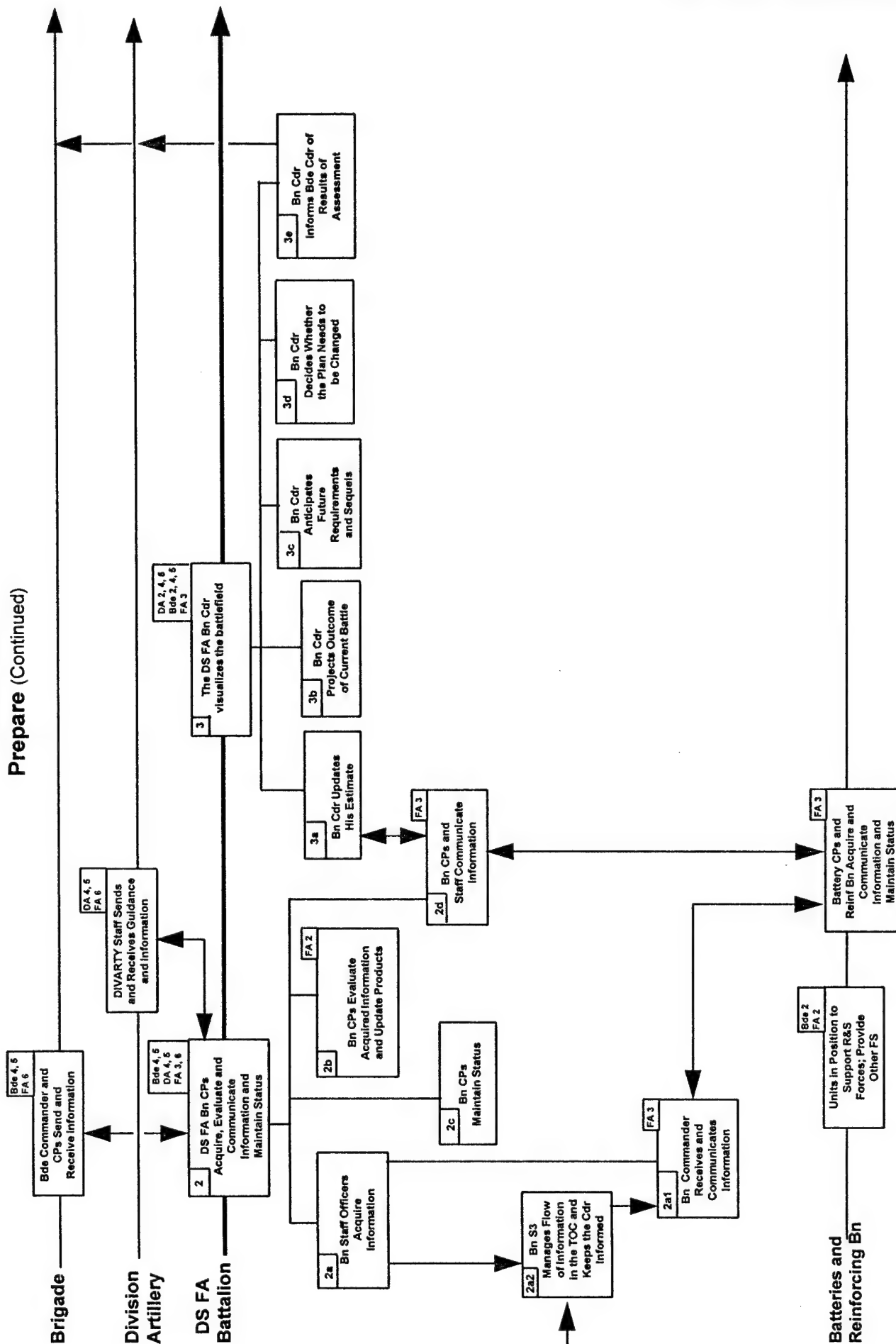


Figure 3. Depiction of placement of the box reflecting information input and output.

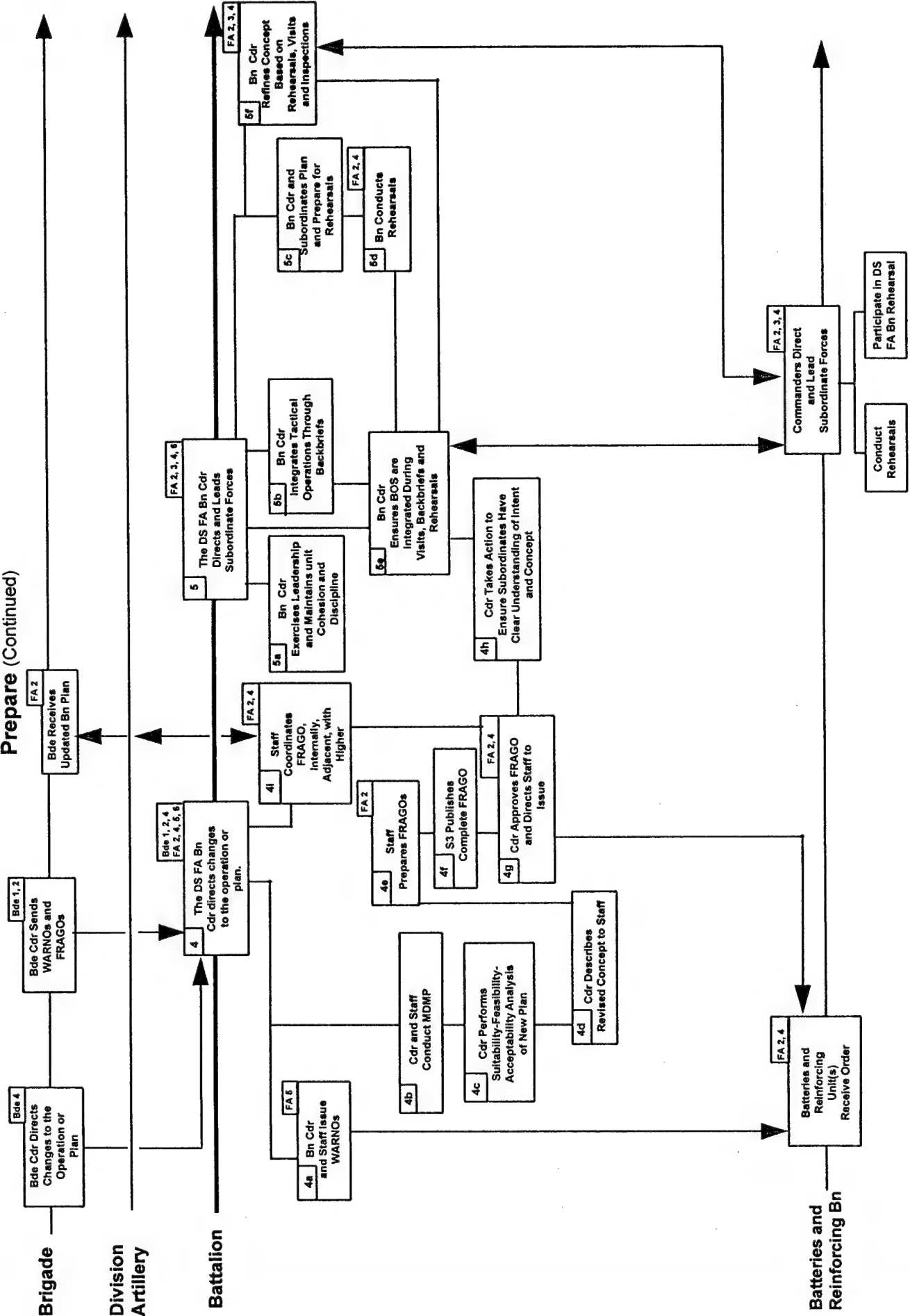
Task Flow
Prepare



Task Flow Prepare (Continued)



Task Flow Prepare (Continued)



TASK LINKAGES TO OTHER BF's/UNITS

This component links the tasks performed as a part of this function with the tasks performed in other BF's or by other units. The purpose of this component is to allow the trainer or training developer to incorporate related tasks and participants into a training exercise for this BF. Tasks which link to this analysis have been extrapolated for BF's/type units for which function analyses (FAs) have not been accomplished. For tasks extracted from published BF FAs, the task number is provided.

The DS FA Bn commander performs two roles. The first is as the commander of the DS FA Bn. The second is as the Bde fire support coordinator (FSCoord). The DS FA Bn Cdr performs tasks for both roles. The tasks performed in support of his role as the brigade (Bde) FSCoord are contained in the task analysis of Bde BF 15, Coordinate, Synchronize, and Integrate Fire Support. The tasks contained in Bde BF 15 relative to the Bde FSCoord role are therefore inherently linked to this BF. Although Bde BF 15 tasks are not contained here, they are fully applicable and necessary to define all tasks the DS FA Bn Cdr is responsible for performing. The DS FA Bn Cdr must position himself where he can best perform tasks in both roles.

TASKS

1. **Direct support field artillery battalion command posts and staff manage and maintain command, control, and communications.**

LINKS TO OTHER BF's/UNITS

Division Artillery BF 19, Task.

- The division artillery (DIVARTY) staff coordinates, advises, and assists the DS FA Bn Staff.
- The DIVARTY operations (S3) section establishes digital communications with all subordinate and supporting units and provides access to DIVARTY and fire support element (FSE) targeting files and support.

Brigade BF 19, Task 1.

- The FSCoord or Bde fire support officer (FSO) and air liaison officer (ALO) may be directed to position with the engineer (Engr) to help control fires during transition from preparation to the mission.
- The Bde plans for employment of the five principal military actions which can degrade or destroy enemy command, control, and communications (C3).

2. **Direct support field artillery battalion command posts acquire, evaluate, and communicate information and maintain status.**

Brigade BF 1, Task.

- The DS FA Bn S2 develops the sensor collection plan.
- The DS FA Bn S2 ensures that the collection effort will identify designated high payoff targets (HPT) and will provide targetable data in a timely manner.

Brigade BF 3, Task.

- The DS FA Bn intelligence officer (S2) determines if information is targetable or has targeting potential by determining how dated information is.
- The DS FA Bn S2 compares information with the Cdr's list of high-priority targets.
- The DS FA Bn S2 compares incoming deep operations information and intelligence received from the Bde S2 to determine its impact on close operations within the next 24 hours.

Brigade BF 19, Task 2.

- The FSCoord, Bde FSO, and Bde FSE section evaluate information and update fire support (FS) products.

Forward Support Battalion (FSB) BF 19, Task 2.

- The FSB S2/3, in coordination with the Bde S3 and FSO, receives, evaluates, and identifies significant changes to the FS plan and supporting documents and transmits information.

Bn Task Force (TF) BF 8, Task.

- The Bn TF FSO coordinates with DS artillery S3/FSCoord.
- The Bn TF FSO serves as FA liaison officer (LNO) between the TF and DS FA Bn.

- The Bn TF FSO conducts continuous coordination to determine artillery needs and requirements with the DS FA Bn main CP DS FA Bn fire direction center (FDC).
- The Bn TF FSE verifies that battlefield information is passed and exchanged among FA Bn.
- The company/team (Co/Tm) FS Tm (FIST) headquarters (HQ) establishes voice and/or digital communications with supporting FA Bn or battery (Btry) FDC.
- When assets available are inadequate, the Bn TF FSO coordinates requests for additional artillery fire from the supporting FA Bn.
- The Bn TF FSE/FSO maintains constant coordination to refine the artillery support plan with the DS FA Bn.

Division Artillery BF 19, Task.

- The DIVARTY S3 coordinates for terrain for general support/general support reinforcing (GS/GSR) and target acquisition assets within the Bde area of operations (AO).

3. **The direct support field artillery battalion commander visualizes the battlefield.**

Brigade BF 19, Task 2.

- The Bde FSO assesses preparation.

Brigade BF 19, Task 3

- The Bde Cdr assesses information relating to:

Fire support.

- (1) Have fire plans been adjusted based on new enemy and terrain information?
- (2) Have fire plans and sector

sketches been developed and modified to ensure that fires can be massed as designated by the Engr?

- (3) Have direct and indirect fire coordination measures been disseminated and confirmed by subordinate Cdrs?
- (4) Have boundaries, contact points, and other control measures been disseminated and confirmed by subordinate Cdrs?
- (5) Are direct and indirect fire plans synchronized and integrated with all other combat multipliers, including physical tie-in between Bde units and units to flanks?
- (6) Do FS priorities adequately weight the main effort?
- (7) Do fires adequately support Bde reconnaissance and surveillance (R&S) and counter-reconnaissance forces?
- (8) Are target acquisition assets in place or projected to be?
- (9) Have target lists been updated by the Bde FSO and TF FSOs and are they synchronized with changes to the Bde or TF schemes of maneuver?
- (10) Are FS units positioned and prepared to support the operation?

Mobility/Counter mobility/ Survivability.

- (11) Are there any modifications to family of scatterable mines (FASCAM) employment plans required by the Engr and FSCOORD/Bde FSO based on new information?

- Necessary changes to the planned role

and employment of FS assets are determined.

- The Bde Engr decides the plan must be modified

4. **The direct support field artillery battalion commander directs changes to the operation or plan.**

Brigade BF 15 - Task, 19.

- The Bde targeting Tm performs FS planning to support the fragmentary order (FRAGO).
- The Bde targeting Tm prepares revised base FS plans and products.

5. **The direct support field artillery battalion commander directs and leads subordinate forces.**

Brigade BF 19, Task 4.

- The FSCoord, Bde FSO, and subordinate unit FSOs participate in Bde rehearsals.

Brigade BF 19, Task.

- Btry Cdrs backbrief the Bn Cdr on their execution of the FA support plan.

KEY PARTICIPANTS BY TASK

This component identifies the training audience for training events for the related tasks. It is based on the appropriate echelon/type unit table of organization and equipment (TO&E) and includes special staff (as per appropriate doctrinal reference) critical for the task accomplishment. The purpose of this component is to help commanders and trainers to identify the training audience required for a training event.

TASKS

PARTICIPANTS

- | | |
|------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. The direct support field artillery battalion command posts and staff manage and maintain command, control, and communications. | DS FA Bn Cdr, DS FA Bn S3, DS FA Bn assistant S3, DS FA Bn executive officer (XO), DS FA Bn headquarters and headquarters battery (HHB) Cdr, DS FA Bn supply/logistics officer (S4), DS FA Bn personnel staff non commissioned officer (PSNCO), DS FA Bn adjutant/personnel officer (S1), DS FA Bn S4 non commissioned officer in charge (NCOIC), DS FA Bn fire direction officer (FDO). |
| 2. Direct support field artillery command posts acquire, evaluate, and communicate information and maintain status. | DS FA Bn Cdr, DS FA Bn XO, DS FA Bn command sergeant major (CSM), DS FA Bn S2, DS FA Bn S2 section, DS FA Bn senior intelligence (Intel) NCO, DS FA Bn fire direction center (FDC) section, DS FA Bn FDO, DS FA Bn S3, DS FA Bn S3 section, DS FA Bn S3 operations (Opns) sergeant (SGT), DS FA Bn chemical officer (CMLO), Bde FSO, Bde target Officer, Bde FSE, DS FA Bn S1, DS FA Bn S1 section, DS FA Bn PSNCO, DS FA Bn chaplain, DS FA Bn surgeon, DS FA Bn S4, DS FA Bn S4 section, DS FA Bn SR SUP SGT, DS FA Bn signal officer (SO), DS FA Bn RSO, DS FA Bn communications section, DS FA Bn ammunition officer (BAO), DS FA Bn motor officer, Bn TF FSO, FIST, combat observation lasing team (COLT), battery (Btry) Cdrs. |
| 3. The direct support field artillery battalion commander visualizes the battlefield. | DS FA Bn Cdr, DS FA Bn XO, DS FA Bn CSM, DS FA Bn S2, DS FA Bn S2 section, DS FA Bn senior Intel NCO, DS FA Bn S3, DS FA Bn S3 section, DS FA Bn opns sgt, DS FA Bn CMLO, Bde FSO, Bde target officer, Bde FSE, DS FA Bn S1, DS FA Bn S1 section, |

- DS FA Bn PSNCO, DS FA Bn chaplain, DS FA Bn surgeon, DS FA Bn S4, DS FA Bn S4 section, DS FA Bn senior support sgt, DS FA Bn SO, DS FA Bn reconnaissance and survey officer (RSO), DS FA Bn Btry Cdrs.
4. **The direct support field artillery battalion commander directs changes to the operation or plan.**
- DS FA Bn Cdr, DS FA Bn XO, DS FA Bn CSM, DS FA Bn S3, DS FA Bn S3 section, DS FA Bn S2, DS FA Bn Intelligence section, DS FA Bn SR Intel NCO, DS FA Bn CMLO, reinforcing. Bn LNOs, Bde/Bn TF FSO, FIST, COLT, Bde FSE, DS FA Bn S1, DS FA Bn S1 section, DS FA Bn PSNCO, DS FA Bn chaplain, DS FA Bn surgeon, DS FA Bn S4, DS FA Bn S4 section, DS FA Bn senior support sgt, DS FA Bn SO, DS FA Bn Btry Cdrs.
5. **The direct support field artillery battalion commander directs and leads subordinate forces.**
- DS FA Bn Cdr, DS FA Bn XO, DS FA Bn CSM, DS FA Bn S2, DS FA Bn S3, DS FA Bn S3 section, DS FA Bn opns sgt, Bde/Bn TF FSO, DS FA Bn FDO, DS FA Bn, Btry and platoon FDCs, FISTs, COLTs, DS FA Bn S1, DS FA Bn S4, DS FA Bn SO, DS FA Bn CMLO, DS FA Bn Btry Cdrs.

KEY INPUTS AND OUTPUTS

This component identifies critical input information required by participants to successfully accomplish the BF. Where information results from the performance of the BF tasks, BF information output will be identified. One BF's information output normally is provided as another BF's input. Critical input and output information is organized by the specific part of the doctrinal product or the means used to communicate the information. The orders' content reflected below is based on information obtained during the revision of the 1993 draft of FM 101-5. The orders outlines have been expanded to facilitate development of material to support unit training. The source of critical information identified is specific only to the BF echelon and function being analyzed, and is not intended to reflect all the information the product may contain. The purpose of this component is to identify information required to drive a training exercise for this BF as performed by this echelon.

The DS FA Bn Cdr performs two roles. The first is as the commander of the DS FA Bn. The second is as the Bde FSCOORD. The DS FA Bn Cdr performs tasks for both roles. The tasks performed in support of his role as the Bde FSCOORD are contained in the task analysis of Bde BF 15, Coordinate, Synchronize, and Integrate Fire Support. The tasks contained in Bde BF 15 relative to the Bde FSCOORD role are therefore inherently linked to this BF. Although Bde BF 15 tasks are not contained here, they are fully applicable and necessary to define all tasks the DS FA Bn Cdr is responsible for performing. The DS FA Bn Cdr must position himself where he can best perform tasks in both roles.

KEY INPUTS

D - 1 DIVISION WARNING ORDER (WARNO)

- a. Mission, intent, and critical combat information requirements (CCIR) of division commander.
- b. Area of operations.
- c. Enemy situation.
- d. Task organization.
- e. Earliest time of movement.
- f. Division deep operations.
- g. Graphics (e.g., fire support, maneuver, obstacles, airspace coordination areas [ACAs]).
- h. Assets available for collection of information and intelligence.
- i. Projected task organization and support relationship for fire support units and target acquisition assets.

D - 2

DIVISION FRAGMENTARY ORDER (FRAGO)

- a. Task organization.
 - 1) FA battalions, batteries, target acquisition assets.
 - 2) Collection assets.
- b. Situation.
 - 1) Division CCIR.
 - 2) Enemy course of actions (COA) and timelines.
 - 3) Weather and terrain.
 - 4) Enemy fire support capabilities (lethal, nonlethal).
 - 5) Enemy air defense artillery (ADA) capability.
 - 6) Enemy air corridors.
- c. Mission.
- d. Execution.
 - 1) Division commander's intent.
 - 2) Concept of the operation
 - a) Scheme of maneuver.
 - b) Fires paragraph.
 - c) Intelligence and division joint targeting board information.
 - d) Electronic warfare (EW) operations.
 - e) Deception operations.
 - f) Battle handover from division to brigade.
 - g) Brigade AO, area of interest (AI).
 - h) Division main effort, supporting efforts.
 - 3) Tasks to division units.

- a) Fire support.
 - (1) Air support and close air support (CAS) allocations.
 - (2) Chemical support.
 - (3) FA support.
 - (4) Naval surface fires (NSF) support.
 - (5) Fire support instructions, including fire support coordinating measures (FSCM).
- 4) Coordinating instructions.
 - a) Risk assessment.
 - b) Timelines (e.g., mission, turn in of requests for air tasking order (ATO) input and additional fire support).
- e. Service support.
 - 1) Controlled supply rate (CSR), required supply rate (RSR).
 - 2) Priorities (by all classes).
 - 3) Supply distribution.
- f. Command and signal.
 - 1) Division signal nodes, locations, networks.
 - 2) Locations for division commander, command group, CPs.
- g. Annexes.
 - 1) Intelligence annex.
 - a) Event template and matrix.
 - b) Information and intelligence collection plan.
 - 2) Fire support annex.
 - a) High payoff target list (HPTL).
 - b) Fire support execution matrix (FSEM).

- c) Restrictions on use of radars.
- d) Target lists.
- e) Schedules of fire.
- f) Target attack guidance, spread sheets, target sheets.
- g) Defeat criteria.
- h) Priorities for control of fire support.
- i) Fires in the brigade zone planned by division.
- j) United States Air Force (USAF) ALO and United States Navy (USN)/United States Marine Corps (USMC) air and naval gunfire liaison company (ANGLICO) task organization.
- k) Ammunition allocation of special munitions (e.g., precision guided munitions [PGM], FASCAM).
- l) Ammunition constraints (e.g., CSR, RSR).
- m) Artillery units tasked as GS and reinforcing to the brigade.
- n) Allocation of meteorological support assets.
- o) Division target data.
- p) Allocation of survey support.
- q) Allocation of radar support.
- r) Division radar zones.
- s) Division counterfires plan.
- 3) Logistics annex.
 - a) Locations of division and higher combat service support (CSS) nodes and routes.
 - b) Brigade requirements to provide CSS to divisional units in brigade AO.
- 4) Graphics.

- a) Named areas of interest (NAIs).
 - b) Targeted areas of interest (TAIs).
 - c) Maneuver.
 - d) Modified combined obstacle overlay (MCOO).
 - e) FSCM.
- 5) Decision support template (DST).

D - 3 DIVISION TACTICAL STANDING OPERATING PROCEDURES (TSOP)

- a. Division targeting process.
- b. Time requirements for submission of reports and requests.
- c. Liaison officer (LNO) procedures and responsibilities.
- d. Target numbering system.
- e. Orders process (including products developed).
- f. Laser pulse repetition frequency code distribution.
- g. Command post (CP) organization and operation.
- h. Army airspace command and control (A2C2) operations.
- i. Communication system distribution and operation (local area network [LAN], wide area network [WAN]).
- j. Attachment and detachment procedures.
- k. Division deep battle operations.
- l. Division intelligence and information dissemination procedures and systems.
- m. Division rehearsal procedures.
- n. Fratricide countermeasures and clearance of fires procedures.

DA - 1 DIVISION ARTILLERY (DIVARTY) WARNO

- a. Mission, intent, and commander's critical information requirements (CCIR) of DIVARTY commander.

- b. Area of operations (AO).
- c. Enemy situation.
- d. Earliest time of movement.
- e. Division deep operations.
- f. Graphics (e.g., fire support, maneuver, obstacles, airspace coordination areas [ACAs]).
- g. Assets available for collection of information and intelligence.
- h. Projected task organization and support relationship for fire support units and target acquisition assets.
- i. Type of fire support munitions available, including controlled supply rate (CSR) and required supply rate (RSR).

DA - 2 DIVARTY FRAGMENTARY ORDER (FRAGO)

- a. Task organization.
 - 1) FA battalions, batteries, target acquisition assets.
 - 2) Collection assets.
- b. Situation paragraph.
- c. Mission paragraph.
- d. Execution paragraph - DIVARTY commander's intent.
 - 1) Concept of the operation.
 - 2) Organization for combat.
 - 3) Coordinating instructions.
 - a) Target acquisition.
 - b) Survey.
 - c) Automated fire control.
 - d) High-payoff target list (HPTL).
 - e) Attack guidance.

- f) Nuclear, biological and chemical (NBC) defense.
 - g) Meteorology (met) support.
 - h) LNO requirements.
 - i) Fire plan.
 - j) Fire support coordination measures (FSCMs).
 - k) Priority intelligence requirements (PIR) and information requirements (IR).
 - l) Intelligence acquisition tasks.
 - m) Ammunition restrictions.
 - n) Antifratricide measures that are not reflected in TSOP.
- e. Service support.
- 1) CSR/RSR.
 - 2) Priorities (by all classes).
 - 3) Supply distribution.
- f. Command and signal.

DA - 3 DIVARTY TSOP

- a. Succession of command.
- b. CP organization and operation.
- c. Orders process (including products developed).
- d. Automated fire control procedures.
- e. LNO procedures and responsibilities.
- f. Alarms and warning procedures.
- g. Fixed call signs and code words.
- h. Road march procedures.
- i. Assembly area operations.

- j. Operations security (OPSEC) and security measures.
- k. A2C2 operations.
- l. Communication system distribution and operations (LAN, WAN).
- m. Time requirements for submission of reports and requests.
- n. Target numbering system.
- o. Laser pulse repetition frequency code distribution.
- p. Attachment and detachment procedures.
- q. Logistics operations.
- r. Division targeting team activities and targeting process.
- s. Information management procedures (e.g., dissemination, logs, and journals).
- t. DIVARTY rehearsal procedures.
- u. Fratricide countermeasures and clearance of fires procedures.
- v. CP standing operating procedures (SOPs).

DA - 4

**GUIDANCE AND INFORMATION FROM THE DIVARTY
COMMANDER AND STAFF**

- a. Situation reports (SITREPs) from DIVARTY S3.
- b. Requests for deconfliction of terrain requirements from DIVARTY S3.
- c. Division and corps designated high-payoff targets (HPTs) and FSCMs.
- d. Maintenance, transportation, and supply updates from DIVARTY S4.

DA - 5

INTELLIGENCE SUMMARIES, SPOT REPORTS

- a. Enemy artillery capabilities (e.g., ranges, system types, systems capabilities).
- b. Enemy NBC capabilities.
- c. Enemy air defense capabilities.
- d. Location and composition of enemy obstacles.

- e. Enemy air routes.
- f. Enemy air assets availability.
- g. Known and suspected enemy locations.
- h. Enemy order of battle (OB) (e.g., size, type, strength) for enemy units the brigade is expected to encounter.
- i. Terrain analysis of battle space (mobility corridors, avenues of approach).
- j. Templates (situation, event).
- k. Weather.
- l. DIVARTY information collection systems and sensors availability.

Bde - 1 BRIGADE (BDE) WARNO

- a. Mission, intent, and CCIR of Bde commander.
- b. Graphics.
- c. Fire support munitions available; CSR and RSR.
- d. Enemy situation.
- e. Assets available for collection of information and intelligence.
- f. Task organization.

Bde - 2 BDE FRAGO

- a. Body of the order (core order).
 - 1) Division commander's intent and CCIR.
 - 2) Brigade commander's intent and CCIR.
 - 3) Written concept of the operation.
 - a) Maneuver.
 - b) Fires.
 - c) Intelligence.
 - 4) Designation of routes, axes, areas, sectors, or battle positions.

- 5) Designation of main and supporting efforts.
 - 6) Coordinating instructions.
 - 7) PIR, IR.
 - 8) Task organization and effective times.
 - 9) Security force operations and battle handoff.
 - 10) Communications and frequency hopping.
 - 11) Rehearsal schedule (if appropriate).
 - 12) OPSEC requirements.
 - 13) Mission timelines.
- b. Intelligence annex and overlays.
- 1) Situation template (SIT TEMP).
 - 2) Terrain analysis.
 - 3) Weather analysis.
 - 4) PIR.
 - 5) R&S plan.
 - 6) Event template.
 - 7) MCOO.
 - 8) NAIs and TAIs.
 - 9) Intelligence acquisition tasks.
- c. Fire support annex and 5 paragraph OPORD (base order) or both.
- 1) Commander's guidance for fire support.
 - 2) Target list (Appendix).
 - 3) FSEM (Appendix).
 - 4) Schedule of fires (Appendix).

- 5) HPTs.
 - 6) Priority of fires, by unit and target (FSEM).
 - 7) FSCM (paragraph 4, base order).
 - 8) Concept of fires.
 - 9) CAS (ATO).
 - 10) FA support.
 - 11) NSF support.
 - 12) Target acquisition plan (tab to field artillery support plan [FASP]).
 - 13) Observer plan (non-doctrinal tool).
 - 14) Target refinement cut-off time.
 - 15) Survey plan (tab to FASP).
 - 16) Field artillery support plan (Appendix).
- d. Engineer annex and overlays.
- 1) Time schedule for use of engineer assets.
 - 2) Bde commander's priority for engineer support (obstacles, assets).
 - 3) FASCAM targets, employment, and criteria.
 - 4) Execution matrix for obstacles.
 - 5) Obstacles (division directed, brigade directed, locations, responsibility for emplacing and emplaced obstacles).
 - 6) Resource requirements.
 - 7) Engineer linkup with maneuver units.
 - 8) Countermobility and survivability timelines.
 - 9) Class (CL) IV and V (obstacle) distribution plan.
- e. Operations overlay.
- 1) Maneuver scheme and concept of the operation.

- 2) Maneuver control measures.
 - 3) Objectives.
 - 4) Main and supporting efforts.
 - 5) Employment of reserves.
 - 6) R&S operations.
 - 7) Force protection operations.
 - 8) Fire coordination measures.
 - 9) Movement plan.
- f. Administration and logistics (A/L) annex and overlay.
- 1) Location and disposition of the brigade support area.
 - 2) CSS overlays with critical information about:
 - a) Main supply route/alternate supply routes (MSR/ASR).
 - b) Locations (current and planned) for supply points.
 - c) Medical positions (casualty collection points, ambulance transfer points [ATPs], aid station locations).
 - d) Logistic release points (LRPs).
 - e) Maintenance unit locations.
 - 3) CSR.
 - 4) Transportation plan and schedule.
 - 5) Logistics priorities and allocation of supplies, by unit and type of support/supplies.
 - 6) Maintenance timelines.
 - 7) Maintenance priorities by unit, type of weapons system/vehicle/equipment.
 - 8) Established controlled exchange procedures.
 - 9) Medical evacuation (MEDEVAC) plan.

- 10) Personnel plan.
- g. Air defense annex.
 - 1) Concept of air defense operations.
 - 2) Active air defense guidance.
 - 3) Passive air defense guidance.
 - 4) Air defense warning system .
- h. NBC defense operations annex and graphics.
 - 1) Enemy NBC capabilities.
 - 2) Known and suspected contaminated areas.
 - 3) Operational exposure guide (OEG).
 - 4) Mission-oriented protective posture (MOPP) guidance.
 - 5) Decontamination sites.
- i. EW annex.
 - 1) Concept of operation (offensive and defensive).
 - 2) Tasks to subordinate and supporting units.
 - 3) Coordinating instructions.
- j. A2C2 annex.
 - 1) Commander's guidance for A2C2.
 - 2) Tasks to supporting air traffic control (ATC) organizations.
 - 3) ADA warnings, weapons control status (WCS), and rules of engagement (ROE).
 - 4) Rules of flight.
 - 5) Coordinating altitudes.
 - 6) Liaison.
 - 7) Friendly and hostile aircraft data.

- 8) Routes and corridors.
- 9) Restricted areas.
- 10) FSCMs (ACAs, etc.).
- k. Army aviation annex.
 - 1) Aviation concept of operation.
 - 2) Joint air attack team (JAAT) guidance.
 - 3) Suppression of enemy air defenses (SEAD).
 - 4) Timeline for Army aviation operations.
- l. Signal operations annex.
 - 1) Concept of signal operations (including priorities).
 - 2) Tasks to subordinate and supporting signal units/elements.
 - 3) Coordinating instructions.
- m. Rear operations annex.
 - 1) Enemy threat (capabilities and levels).
 - 2) Concept for rear area combat operations (RACO) and area damage control (ADC) including graphics.
 - 3) Tasks to subordinate and supporting units.
 - 4) Coordinating instructions.
 - a) RACO and ADC.
 - b) Civil-military.
 - c) Fire support coordination.
- n. Military police (MP) annex.
 - 1) Concept of MP operations (including priorities).
 - 2) Tasks to subordinate units.
 - 3) Coordinating instructions.

- a) Coordination and cooperation with civil authorities.
 - b) Rear operations.
 - c) Enemy prisoner of war (EPW) operations.
 - d) Law and order operations.
 - e) Battlefield circulation and control.
- o. Civil affairs annex.
- 1) Concept for civil affairs (including priorities).
 - 2) Civil affairs tasks to subordinate and supporting units.
 - 3) Coordinating instructions.
- p. OPSEC annex.
- 1) Enemy capabilities.
 - 2) Concepts of OPSEC.
 - 3) Tasks to subordinate units.
 - 4) Countermeasures.
 - 5) Counterintelligence (CI).
 - 6) Coordinating instructions.
- q. Movements annex.
- 1) Main supply routes (MSRs).
 - 2) Routes and schedules.
 - 3) Traffic flow and control.
 - 4) Rest and refuel areas.
- r. Psychological operations (PSYOP) annex.
- s. DST.
- 1) Enemy events, activities, and targets.

- 2) Friendly events, activities, scheme of maneuver, and control measures (from synchronization matrix and operations overlay).
 - 3) CCIR.
 - 4) Estimates of time available to implement decisions which lead to critical decision requirements.
 - 5) Significant locations and events: (NAIs, time-phased lines [TPLs], decision points [DPs], TAIs, and triggers [events to cause action].)
- t. Synchronization matrix.
- 1) Decision at each TPL.
 - 2) Enemy actions and activities.
 - 3) Friendly dispositions and actions.

Bde - 3

BDE TSOP

- a. Succession of command.
- b. CP organization and operation .
- c. Orders process (including products developed).
- d. War-game procedures.
- e. LNO procedures and responsibilities.
- f. Alarms and warning procedures.
- g. Fixed call signs and code words.
- h. Road march procedures.
- i. Assembly area operations.
- j. OPSEC and security measures.
- k. A2C2 operations.
- l. Communication system distribution and operations (LAN, WAN).
- m. Time requirements for submission of reports and requests.
- n. Target numbering system.

- o. Laser pulse repetition frequency code distribution.
- p. Attachment and detachment procedures.
- q. Logistics operations.
- r. Brigade targeting team activities and targeting process.
- s. Information management procedures (e.g., dissemination, logs, and journals).
- t. Brigade rehearsal procedures.
- u. Fratricide countermeasures and clearance of fires procedures.
- v. CP SOPs.

**Bde - 4 GUIDANCE AND INFORMATION FROM THE BDE COMMANDER
AND STAFF**

- a. Oral orders and guidance from the Bde Cdr, XO, S3, or FSO.
- b. Intelligence products from Bde S2.
 - 1) Enemy artillery capabilities (e.g., ranges, system types, systems capabilities).
 - 2) Bde IPB.
 - 3) Bde MCOO.
 - 4) Enemy NBC capabilities.
 - 5) Enemy air defense capabilities.
 - 6) Location and composition of enemy obstacles.
 - 7) Enemy air routes.
 - 8) Enemy air assets availability.
 - 9) Known and suspected enemy locations.

- 10) Enemy OB (e.g., size, type, strength) for enemy units the brigade is expected to encounter.
- 11) Terrain analysis of battlespace (mobility corridors, avenues of approach).
- 12) Templates (situation, event).
- 13) Weather.
- 14) Brigade information collection systems/sensors availability.
- c. SITREPs from Bde S3.
- d. Deconfliction of terrain requirements from Bde S3.
- e. Commander's target attack criteria from Bde Cdr.
- f. Fire support plan and target list, HPTs, FSCMs, FSEM, attack guidance matrix (AGM) from Bde FSO and targeting team.
- g. Maintenance, transportation, and supply updates from Bde S4.
- h. Bde obstacle plan from assistant brigade engineer (ABE).
- i. Bde CSS information.
 - 1) Current and projected classes of supply status for fire support units.
 - 2) Current and projected maintenance status of fire support and collection systems.
 - 3) CL V availability and resupply status.
 - 4) Task organization of CSS assets to fire support units.
 - 5) Transportation assets and capabilities to support fire support units.
 - 6) RSR, CSR.
 - 7) Status of MSR/ASR.

- 8) Status and locations of CSS nodes.

Bde - 5 INTELLIGENCE SUMMARIES, SPOT REPORTS

- a. Enemy artillery capabilities (e.g., ranges, system types, systems capabilities).
- b. Enemy NBC capabilities.
- c. Enemy air defense capabilities.
- d. Location and composition of enemy obstacles.
- e. Enemy air routes.
- f. Enemy air assets availability.
- g. Known and suspected enemy locations.
- h. Enemy order of battle (OB) (e.g., size, type, strength) for enemy units the Bde is expected to encounter.
- i. Terrain analysis of battle space (mobility corridors, avenues of approach).
- j. Templates (situation, event).
- k. Weather.
- l. Bde information collection systems and sensors availability.

FA - 1 FA BN TSOP

- a. Battle command procedures.
 - 1) Succession of command.
 - 2) Alternate CPs.
 - 3) Displacement of CPs.
 - 4) CP security.
 - 5) Orders and plans.
 - 6) CP organization and layout and shifts.
 - 7) CP communications.

- 8) Reports.
- 9) Rehearsals.
 - a) FS rehearsals.
 - b) Technical rehearsals.
- b. Control procedures.
 - 1) LNO procedures.
 - 2) Brevity codes.
 - 3) Terrain index reference system.
 - 4) Recognition techniques.
 - 5) Signals.
 - 6) Alarms and warnings.
 - 7) Readiness conditions.
 - 8) Fixed call signs.
- c. Tactical movements procedures.
 - 1) Hasty displacement.
 - 2) Survivability moves.
 - 3) Passage of lines.
- d. Assembly area procedures.
- e. Air defense procedures.
 - 1) ADWs.
 - 2) WCS and guidance.
 - 3) ROE.
- f. Signal procedures.
 - 1) Communications security (COMSEC) procedures

- 2) Anti-jamming procedures.
- 3) Maintenance.
- g. Intelligence and security procedures.
 - 1) General guidance.
 - 2) NAI and TAI procedures.
 - 3) Document security.
 - 4) Personnel security.
 - 5) EPW procedures.
 - 6) Captured document and equipment procedures.
- h. NBC procedures.
 - 1) MOPP guidance and analysis procedures.
 - 2) Required NBC teams.
 - 3) Alarms and warnings.
 - 4) Reporting and marking procedures.
- i. Fire support procedures.
 - 1) Target numbering.
 - 2) Laser code assignments.
 - 3) Target-reference point (TRP) standards.
 - 4) A2C2 procedures.
- j. Survey procedures
 - 1) Position azimuth determining system (PADS) and global positioning system (GPS).
 - 2) Conventional.
 - 3) RSO plan.
 - 4) Simultaneous observation procedures.

- 5) Hasty survey procedures.
- k. Fire direction procedures.
 - 1) Manual and digital fire order.
 - 2) Tactical fire direction system (TACFIRE), improved fire support automated system (IFSAS), advanced field artillery tactical data system (AFATDS) SOP.
 - 3) Digital and manual interface procedures.
 - 4) Management of muzzle velocity (MV).
 - 5) Clearance of fires.
- l. Radar operations.
 - 1) Positioning and movement.
 - 2) Communications, digital and voice.
 - 3) Cueing.
 - 4) Radar zones.
- m. Firing battery operations
 - 1) Occupations, deliberate and hasty.
 - 2) Ready-to-fire standards.
 - 3) Reports
 - 4) Force protection.
 - 5) Battery operations center (BOC) operations.
 - 6) Communications, digital and voice.
 - 7) Load plans.
 - 8) Position improvement procedures.
 - 9) Movement procedures.
 - 10) Reconnaissance, selection, and occupation of position (RSOP) procedures.

- n. Logistics procedures.
 - 1) Trains, combat, and field.
 - 2) Reports.
 - 3) Reorganization and reconstitution.
 - 4) Supply.
 - 5) Services.
 - 6) Transportation.
 - 7) Refueling on the move (ROM).
- o. Personnel procedures.
 - 1) Reports.
 - 2) Replacement operations.
 - 3) Casualty reporting.
 - 4) Postal.
 - 5) Finance.
 - 6) Health service support (HSS).
 - (a) Battalion aid station.
 - (b) Ambulance exchange points (AXPs)
 - 7) MEDEVAC procedures.
 - 8) Legal.
 - 9) Public affairs.
 - 10) Religious.
- p. Civil-military operations (CMO) procedures.

FA - 3

INFORMATION FROM FA BN SUBORDINATE ELEMENTS AND OTHER UNITS

- a. Spot reports (SPOTREPs).

- b. Intelligence spot reports. (Size, activity, location, unit, time, equipment [SALUTE]).
- c. Logistics reports.
- d. XO's reports.
- e. NBC reports.
- f. Bottom-up refinement of fire plans, target lists, and final protective fires (FPFs).
- g. FIST and forward observer (FO) SITREPs.
- h. Survey party SITREPs.

KEY OUTPUTS

FA - 2 **FA BN OPORD - FA BN SUPPORT PLAN (FASP)** (May be written in 5 para. format, FA support matrix, FRAGO, or presented as oral orders as time allows. Appendix to Bde order.)

- a. Heading
 - 1) Security markings.
 - 2) Confirmation statement in regard to oral orders.
 - 3) Copy number.
 - 4) Issuing headquarters.
 - 5) Place of issue.
 - 6) Date and time order is signed.
 - 7) Message reference number.
 - 8) Number.
 - 9) Code name (if applicable).
 - 10) Map references.
 - 11) Time zone order is executed.
- b. Task organization:

- 1) Lists major subordinate headquarters in the correct sequence.
- 2) Qualifies relationships other than attachment by parenthetical terms such as operational control, general support (GS), or DS.
- 3) Uses task organization matrix if desired.
- 4) Allocation of all FA assets.
- 5) Projected changes to the allocation of FA assets based on tactical contingencies.

c. Situation

- 1) Enemy forces:
 - a) In sketch form rather than a verbal description when possible.
 - b) Refers to intelligence annex, intelligence overlay, intelligence report, or intelligence summary. (Use an intelligence annex only if there is enough information to make an annex necessary).
 - c) Provides an assessment of the terrorist threat to the command.
- 2) Friendly forces:
 - a) Includes mission of higher unit and information concerning higher, adjacent, supporting, and units.
 - b) Discusses units essential to the operation.
 - c) States higher commander's concept and intent.
 - d) Provides for minimizing chance of fratricide.
 - e) Lists attachments and detachments:
 - (1) Does not repeat information under "task organization."
 - (2) Indicates "see task organization" if task organization used.

- (3) States when attachment and detachment is to be effective.

d. Mission

- 1) States the task and its purpose.
- 2) Outlines essential tasks determined by the commander.
- 3) Contains the elements of who, what, when, where, and why.

e. Execution

- 1) Concept of operation. A brief paragraph, written by the battalion commander, that:
 - a) States the commander's vision of the operation.
 - b) Describes the purpose of the operation.
 - c) Describes how the commander visualizes achieving the endstate with respect to the relationship between the force as a whole, the terrain, and the enemy.
 - d) States how the endstate will facilitate future operations.
 - e) Does not summarize the concept of operation or describe subunit missions.
- 2) Organization for combat. (Contains organization, tactical missions and on-order missions.)
- 3) Fires:
 - a) Describes "concept of fires" to support overall concept, including chemical and other special purpose munitions within the battlefield framework.
 - b) States priority of fire support.
 - c) Includes time and duration of preparatory fires (if applicable).
 - d) Refers to fire support annex if used.

- e) Designate priority use of low-density munitions; priority as to type of fires, preparatory fires, and illumination (time and duration as appropriate).
- 4) Positioning and movement instructions.
- 5) Specific tasks to be accomplished by specific sub-elements.
- 6) Coordinating instructions.
 - a) Target acquisition.
 - b) Survey (includes priorities, accuracy required, timing, position requirements, and future plans).
 - c) HPT list.
 - d) AGM.
 - e) NBC defense (includes MOPP, OEG, and decontamination instructions).
 - f) Meteorological messages (source, type, and times).
 - g) Fire plan (includes target list and schedule of fires).
 - h) FSCM.
 - i) PIR and or IR.
 - j) Intelligence acquisition tasks.
 - k) Ammunition restrictions.
 - l) Radar deployment order (RDO) for reinforcing headquarters.
- f. Service Support.
- g. Command and signal.
- h. Common tabs: FA support matrix, target lists, fire plan, survey tab, target acquisition tab, TACFIRE tab, FA positioning and or movement.

FA - 4

FA BN SUPPORT MATRIX

- a. Unit essential tasks. (Who, what, when, where.)

- b. Trigger events.

FA - 5

FA BN WARNO

- a. HEADING

- 1) References (Maps, charts, and other relevant documents).
- 2) Time zone used throughout the order:
- 3) Task organization:

- b. SITUATION

- 1) Enemy forces. (Include significant changes of information.)
- 2) Friendly forces.
 - a) Higher headquarters and supported unit missions.
 - b) DIVARTY and supported Bde commander's intents.
 - c) Bde concept of operation.
 - d) Missions of units to the immediate left and right.
 - e) Missions of other units with a significant bearing on the battalion.
- 3) Attachments and detachments.

- c. MISSION of the battalion.

- d. EXECUTION

Intent of the battalion commander (if available).

- 1) Concept of operation (when available).
- 2) Tasks to batteries (when available).
 - a) Tasks to units for execution.
 - b) Movement to be initiated (time).
 - c) Reconnaissance to be initiated (time).
 - d) Security to be in place (time).

- 3) Tasks to trains (when available).
- 4) Coordinating instructions.
 - a) CCIR.
 - b) Risk guidance.
 - c) Deception guidance.
 - d) Timeline.
 - e) Guidance on orders and rehearsals.
 - f) Orders group meeting (attendees, location, and time) (when applicable).
 - g) Earliest time of movement and degree of notice.
- e. SERVICE SUPPORT
 - 1) Special equipment. (Requirements; coordinating instructions for transfer to using units.)
 - 2) Transportation. (Requirements; coordinating instructions for prepositioning of assets.)
- f. COMMAND AND SIGNAL
 - 1) Command. (Chain of command if different from battalion TSOP.)
 - 2) Signal. (Current signal operating instructions (SOI); prepositioning of assets to support the operation.)
- g. ACKNOWLEDGE (Statement directing acknowledgment of receipt and understanding.)

FA - 6

FA BN SITREPS

- a. Fire support systems available.
- b. Current and projected status (e.g., cannons, ammunition, FDCs, radars).
- c. Current FA unit and systems locations.
- d. Number, type, and status of FA units supporting the DS FA battalion.
- e. Munitions capabilities.

- 1) Ammunition supply points' locations.
- 2) Ammunition and propellant availability.
 - a) Quantity, by type (e.g., precision guided munitions [PGM], FASCAM, rocket assisted projectile [RAP]).
 - b) Fuses and charges availability.
- f. Status on movement plans, terrain requirements, and position requirements for fire support assets.
- g. Observer and observer location requirements.
- h. Status of division directed missions, and allocation and positions of division assets in the brigade sector.
- i. Transportation requirements.
- j. Communications requirements.
- k. Status of digital systems.
- l. Status of PADs and GPS.
- m. Target attack systems capabilities.
- n. Jamming requirements.
- o. Rear area fire support capability (assets available to provide support, areas requiring support).
- p. Current and projected classes of supply status for fire support units.
- q. Status of MSR/ASR.
- r. Status and locations of CSS nodes.

FA - 7

**GUIDANCE AND INFORMATION FROM THE BATTALION
COMMANDER AND STAFF**

- a. Oral orders and guidance from the battalion commander, XO, and S3.
- b. Operations reports.
- c. Intelligence reports.
- d. Logistics reports.

- e. Personnel reports.

TASK LIST SUMMARY

This component provides a summary of the first level of tasks on the task list

1. **Direct support field artillery battalion command posts and staff manage and maintain command, control, and communications.**
2. **Direct support field artillery battalion command posts acquire, evaluate, and communicate information and maintain status.**
3. **The direct support field artillery battalion commander visualizes the battlefield.**
4. **The direct support field artillery battalion commander directs changes to the operation or plan.**
5. **The direct support field artillery battalion commander directs and leads subordinate forces.**

TASK LIST

The purpose of this component is to identify, organize, and list in logical sequence all of the tasks and subtasks necessary to perform this function. Normally, the primary participants responsible for performing the task are identified. The tasks were extracted from the appropriate doctrinal publications and sources. The specific sources of reference for each task and subtask are shown in brackets [] following the task.

In many instances, the wording of the task has been changed from the text found in the Army Training and Evaluation Program - Mission Training Plan (ARTEP-MTP) or Field Manual (FM) to add clarity, context, or meaning. The references allow the user to refer to the original source material for further detail and context, if desired.

For tasks selected from an ARTEP-MTP, the task number has been expanded with a slash (/) to identify the subtask and standard reflected in the ARTEP-MTP task. To illustrate: a task referenced as [ARTEP 71-3-MTP, 71-3-4001/4c] was derived from ARTEP 71-3-MTP, the Mission Training Plan for the Heavy Brigade Command Group and Staff, and identifies brigade S4 section task "71-3-4001, Conduct Logistical Planning," subtask "4," "Prepares plans and orders," standard or sub-element "c."

For tasks derived from an FM, the FM number and page number have been provided as a reference. For example, the reference for a task, "The brigade commander demonstrates understanding of mission and higher commander's intent during confirmation briefing to the division commander," would be [FM 101-5, p. 1-9].

Some tasks and subtasks needed to define the function are not contained in ARTEP-MTPs nor can they be derived from FMs. Tasks and subtasks were identified to fill such gaps and were developed during coordination visits with various TRADOC schools, Forces Command (FORSCOM) units, and Combat Training Center (CTCs). These tasks are listed as field notes [FN] and are annotated with their source. For example, tasks identified by Combat Service Support (CSS) Observer-Controllers (OCs) at the National Training Center (NTC) would be referenced as [FN-NTC CSS OCs]. Still other tasks and subtasks were identified based on review of newsletters and other documents published by the Center for Army Lessons Learned (CALL) which capture lessons learned from Army units relevant to doctrine, tactics, techniques, and procedures (DTTP). Tasks derived from CALL publications are referenced as Lessons Learned [LL] with the appropriate document and page number provided. For example, a task extracted from CALL Newsletter 95-6, "National Training Center's 'Fighting with Fires'" is referenced as [LL-CALL Newsletter 95-6, p. 16].

In some cases, the analysis of the BF resulted in the identification of tasks for which no doctrinal references could be determined. Such tasks were selected based on author experience and a careful study of relevant doctrine. These tasks are referenced as author notes [AN].

Full references for all the source material are listed in the reference section.

1. **The direct support field artillery battalion command posts and staff manage and maintain command, control, and communications.**

a. Battalion CPs manage means of communicating information. [FM 101-5, Chap 6 and App B, L; ARTEP 6-115-MTP, task 06-3-01-2150, 2160, 2120]

1) The DS FA battalion commander appoints an "information manager" from the staff (usually the battalion S3) to: [FM 101-5, Chap 6 and App B]

- a) Facilitate the flow of information and communication of information from DS FA battalion staff members and subordinate units.
- b) Outline and monitor the performance and responsibilities of the DS FA battalion staff in processing mission information, preparation status, and the DS FA battalion commander's information requirements.

c) Establish and enforce timelines.

2) The DS FA battalion XO, as primary logistician:

NOTE: The DS FA battalion XO is the second in command of the DS FA battalion. He is the senior staff officer of the unit and serves as the primary logistician. He must position himself, based on the location of the DS FA battalion commander, where he can best perform either function (e.g., when the DS FA battalion commander is with the brigade commander and staff, the XO may devote more of his time in his role as second in command). [FM 6-20-1, p. 3-4]

- a) Supervises the activities of the DS FA battalion CSS staff.
- b) Ensures that DS FA battalion units are logistically sustained.
- c) Determines the best organization of the trains to support the DS FA battalion commander's intent based on the following considerations:
 - (1) Factors of mission, enemy, terrain, troops, and time available (METT-T).
 - (2) Ability to command, control, and communicate logistics operations.
 - (3) Security of the trains.

- (4) Location of the brigade support area (BSA).
 - (5) Responsiveness.
- 3) The DS FA battalion assistant S3 manages the operations of the DS FA battalion tactical operations center (TOC) and the operations section when the DS FA battalion S3 is not available. [FM 6-20-1, p. 3-2]
 - a) Coordinates and integrates staff activities.
 - b) Initiates staff action as directed by the DS FA battalion commander, XO, and S3.
 - c) Establishes and enforces timelines.
- 4) DS FA battalion S3 directs staff meetings: [AN]
 - a) Ensures that each staff officer disseminates information which is relevant to the entire staff.
 - b) Appraises completeness of information.
 - c) Identifies information gaps and directs actions to fill them.
 - d) Initiates staff planning as appropriate.
- 5) LNOs provide information to the DS FA battalion commander and staff and to the headquarters they represent. Information includes: [FM 101-5, App L]
 - a) Responses to specific questions asked of LNO.
 - b) Unit locations, activities, capabilities, status, and intentions.
 - c) Identification of coordination problems.
 - (1) Inability to reach/meet with specific people or staff positions.
 - (2) Receipt of information which invalidates or should change estimates and plans.
- 6) All DS FA battalion CPs eavesdrop on lower and adjacent unit command, and operations and intelligence (O&I) nets for information. [FN-NTC]

- 7) All DS FA battalion CPs ensure that information on the situation is communicated between staff officers during shift changes. [FM 71-3, p. 3-25]
 - a) Enemy activities.
 - b) Status of subordinate units.
 - c) Ongoing staff actions which must be monitored, tracked, and completed.
 - d) Timelines and suspenses which must be met.
 - e) Planning for future missions.
- 8) All DS FA battalion CPs communicate routine information per DS FA battalion TSOP. [FM 101-5, p. 6-5]
- 9) DS FA battalion S3 at the DS FA battalion TOC manages communication: [ARTEP 6-115-MTP, Task 06-06-3-01-2120, FM 6-20-1, pp. 6-7 - 6-21]
 - a) Facilitates control and coordination for the DS FA battalion commander through communication with subordinate, adjacent, and supporting elements.
 - b) Passes processed information and keeps the DS FA battalion commander updated on new information through concise, consolidated updates.
- b. DS FA battalion CPs maintain communications. [ARTEP 6-115-MTP, Task 6-2-02-3000, 5000, 06-2-02-4000, 06-2-01-6000; FM 6-20-40, Chap 2]
 - 1) DS FA battalion CPs position so that the DS FA battalion commander maintains communications with higher, adjacent, reinforcing, and subordinate units to provide continuous fire support to the force during preparation and transition to battle. [FM 6-20-1, p. 3-25]
 - a) The DS FA battalion commander exercises command and control during mission preparation.
 - b) DS FA battalion, battery, and platoon CPs displace, as required, prior to line of departure (LD) time or other mission execution time to provide most responsive fire support during the transition from preparation to the initiation of the battle.

- c) DS FA battalion staff ensures that CPs are not detected by the enemy by using passive defense measures.
- 2) The DS FA battalion TOC positions prior to mission execution to:
 - a) Effectively collect, analyze, and pass critical information.
 - b) Maintain voice and digital communications with higher, adjacent, reinforcing, and subordinate units.
 - c) Receive and disseminate situation updates during transition from the preparation phase to mission execution.
 - d) Supervise and manage the operation and monitoring of communications nets.
 - (1) DS FA battalion command (voice).
 - (2) Brigade command (voice).
 - (3) DS FA battalion fire support nets (voice and digital).
 - (4) DS FA battalion fire direction nets (voice and digital).
 - (5) DS FA battalion operations/fire (digital).
 - (6) DS FA battalion administrative/logistics (A/L) (voice).
 - (7) DIVARTY command (voice).
 - (8) DIVARTY operations/fire (voice and digital).
- 3) The DS FA battalion administration and logistics operation center (ALOC) positions prior to mission execution to conduct rapid movement of emergency CL III and V forward to support the DS FA battalion. [FM 6-20-1, p. 7-8]
 - a) Monitors the DS FA battalion A/L net to determine subordinate unit CSS requirements.
 - b) Anticipates the need for emergency delivery of classes III and V, and recovery operations by pre-positioning assets well forward.
 - c) The HHB commander commands the combat trains. The DS FA battalion S4, assisted by the DS FA battalion PSNCO, supervises ALOC operations in the combat trains. [FM 6-20-1, p. 7-5; FM 6-20-40, p. F 4]

- (1) Manages (net control station [NCS]) for the DS FA battalion A/L net; maintains communications with subordinate and supporting units and headquarters.
 - (2) Monitors the tactical situation and maintains communications to ensure that it is prepared to assume duties of the DS FA battalion TOC, if needed.
 - (3) Operates on and monitors communications nets.
 - (a) DS FA battalion command.
 - (b) DS FA battalion A/L.
 - (c) Brigade A/L.
- d) The DS FA battalion S1 supervises the DS FA battalion support operations center (BSOC) operations assisted by the DS FA battalion S4 NCOIC. The BSOC:
 - (1) Monitors the DS FA battalion A/L net and communicates with the supporting FSB elements by wire.
 - (2) Coordinates all logistical and administrative support for the DS FA battalion directly with the FSB.
- 4) The DS FA battalion CPs take action to survive: [FM 6-20-1, p. 3-25]
 - a) The DS FA battalion CPs use cover, concealment, and routes which reduce detection by the enemy.
 - b) Local security is structured to provide early warning, perimeter protection, and a reaction force for immediate response.
 - c) OPSEC is continually monitored.
 - d) Risks to mission accomplishment and safety hazards are continuously assessed.
- 5) Communications are maintained without interruption with all subordinate elements and higher headquarters to allow the DS FA battalion commander and staff to exercise command and control. [FM 6-20-1, p. 3-26]
- 6) Firing elements of the DS and reinforcing battalions are repositioned, if necessary, to support the operation.

- a) Units are positioned in depth to provide continuous support during movement.
 - b) Hasty displacement criteria are reviewed for units required to deliver high volumes of fire (i.e., to support preparation fires, obscuration fires, field artillery-delivered FASCAM).
 - c) The DS FA battalion FDO reviews the requirements for accurate predicted fires to determine the need for precision registration.
 - (1) Accurate target location and size.
 - (2) Accurate firing unit location.
 - (3) Weapon and ammunition information.
 - (4) Met information.
 - (5) Computational procedures.
 - d) The DS FA battalion fire direction officer (FDO) directs a precision registration if required.
- 2. **Direct support field artillery battalion command posts acquire, evaluate, and communicate information and maintain status.** [TRADOC Pam 11-9, Section IV; "Battle Command," BCBL-Ft. Leavenworth publication, pp. 43, 65; ARTEP 6-115-20-MTP, Task 06-3-02-1100; FM 34-130, Chap 2; FM 6-20-40, Chap 2; FM 101-5, Chap 3, 5, App J]
 - a. The DS FA battalion staff officers acquire information. [TRADOC Pam 11-9, Chap 7 and App D]
 - 1) The DS FA battalion commander obtains and communicates information relative to DS FA battalion preparations. [AN]
 - a) The DS FA battalion commander refines/updates his CCIR based on current situation. [FM 101-5, pp. 4-47, 48; 6-8, 9]
 - (1) Refines his need for information based on his visualization of current and future desired endstates.
 - (2) Anticipates flow of the of the battle (e.g., changes in battle phasing) to assess validity of CCIR.
 - (3) Considers changes to METT-T which may alter information requirements.

- b) The DS FA battalion commander receives new guidance or missions from the brigade commander.
 - c) The DS FA battalion commander obtains and communicates information concerning DS FA battalion preparations from the DS FA battalion staff, from subordinate and supporting commanders, and during personal visits and inspections.
- 2) The DS FA battalion S3 manages the flow of information in the DS FA battalion TOC and establishes a system to keep the DS FA battalion commander informed. [FM 101-5, pp. 6-2, 6-11, 6-34; ARTEP 6-115-MTP, Task 06-3-01-2110]
- 3) All DS FA battalion staff officers, LNOs, and subordinate leaders obtain information; they commonly: [FM 101-5, pp. 3-84, C-4, Chap 6, App A]
- a) Focus information collection according to CCIR and staff information requirements relevant to their areas of responsibility and immediately communicate any response to CCIR to the DS FA battalion commander, XO, and S3. Information required by other staff officers is passed directly to them. [FM 101-5, pp. 6-8, 6-11, 6-16, and C-4]
 - b) Obtain information relevant to fulfilling their areas of responsibility for the DS FA battalion's preparations for battle in order to: [FM 101-5, pp. 6-33, 6-34]
 - (1) Monitor and modify preparation activities as necessary.
 - (2) Keep the commander informed of factors impacting on his ability to perform his role as DS FA battalion commander or FSCOORD for the brigade.
 - c) Provide updates to the DS FA battalion commander on their functional areas. [FM 101-5, pp. 6-33, C-2]
 - d) Continually coordinate with each other personally and with external headquarters to obtain information which includes: [FM 101-5, p. 3-84, App A]
 - (1) Specific information requirements, e.g., information to assist the DS FA battalion S2 with refinement of the DS FA battalion intelligence preparation of the battlefield (IPB);

information to assist the DS FA battalion S3 regarding units' requirements for use of terrain in the brigade area.

- (2) Updates/modifications of CCIR as directed by the DS FA battalion commander during:
 - (a) Rehearsals.
 - (b) Backbriefs.
 - (c) Commander visits.
- 4) The DS FA battalion CSM obtains information during visits and inspections and advises the DS FA battalion commander on: (discussed in tasks 2 and 4 of this task analysis) [AN]
 - a) Morale, discipline, and adherence to standards by DS FA battalion soldiers.
 - b) Assessment of units' preparations.
 - c) Assessment of CSS system.
 - d) Assessment of the welfare of DS FA battalion soldiers.
 - e) Other duties or information requested by the DS FA battalion commander.
- 5) The DS FA battalion S2 section obtains intelligence information: [FM 101-5, pp. C-7, C-8; FM 34-130, Chap 2]
 - a) From brigade and DIVARTY S2s and DS FA battalion staff, obtains: [FM 6-20-1, pp. 3-10 - 3-12]
 - (1) Changes from the DS FA battalion commander to guidance and mission concept and his requirements for intelligence information determined during rehearsals and backbriefs.
 - (2) Intelligence summaries (INTSUM) and spot reports from brigade, DIVARTY, and higher headquarters.
 - (3) Information from brigade, DIVARTY, and adjacent units.

- (4) OPSEC reports from the DS FA battalion S3/operations section and subordinate units which contribute to analysis of DS FA battalion security posture.
 - (5) Information on current situation learned by eavesdropping on brigade, DIVARTY, and adjacent unit command and O&I nets.
- b) From subordinate units including: [ARTEP 6-115-MTP, Task 06-3-01-2512]
 - (1) FISTs, FSOs, COLTs.
 - (2) Survey parties.
 - (3) Battery defense observation posts (OPs) and listening posts (LPs).
 - (4) Battery advance parties.
 - (5) Radars attached to or organic to or otherwise supporting the DS FA battalion.
- c) From DS FA battalion special staff officers. [FM 101-5, App A]
- d) From LNOs from/to higher, adjacent, and supporting units. [FM 101-5, App L]
- e) From other sources such as:
 - (1) Aerial photographs.
 - (2) Prisoners, deserters, and civilian population.
 - (3) Electronic warfare (EW), radars, and sensors.
 - (4) Unmanned aerial vehicles (UAVs).
- 6) DS FA battalion S3 section obtains operations information (i.e., changes to METT-T and status of battlefield operating systems [BOS]). [FM 101-5, pp. C-8, C-9]
 - a) From DS FA battalion, brigade, and DIVARTY commanders and S3s which may affect operations. [ARTEP 6-115-MTP, Task 06-3-01-2110,2120]

- (1) Direction from the DS FA battalion commander.
 - (a) Changes to mission concept or details of the plan.
 - (b) Requirements for information determined during rehearsals and backbriefs.
 - (c) Other guidance and directives.
 - (2) FRAGOs/WARNOs from brigade commander, S3, or brigade FSO.
 - (3) Situation updates from brigade FSO or other brigade staff such as:
 - (a) SITREPs.
 - (b) Responses on queries and requests submitted by the DS FA battalion.
 - (c) Changes to brigade situation which necessitate changes to DS FA battalion OPSEC posture.
 - (4) Division and corps units requiring terrain in the brigade AO.
- b) From subordinate units including: [ARTEP 6-115- MTP Task 06-3-01-2110, 2150]
- (1) Changes to subordinate units' plans.
 - (2) Status of preparations.
 - (3) Reports.
 - (a) Enemy contact.
 - (b) Current and projected strength and combat power.
 - (c) OPSEC reports.
 - (d) Results of local security operations.
 - (3) Requests for resources based on mission analyses and determination of needs to accomplish assigned tasks.

- (4) Recommendations for changes to the DS FA battalion plan based on their current and projected status.
- c) From other staff officers and LNOs. [ARTEP 6-115-MTP Task 06-3-01-2120; FM 101-5, App A]
 - (1) Information from the DS FA battalion S2 and intelligence section which confirms or refutes operations estimate of the situation.
 - (2) Updates from DS FA battalion S1/S4.
 - (a) Personnel and unit status.
 - (b) Vehicle and equipment status.
 - (c) Status of all classes of supply.
 - (3) Updates from brigade FSE.
 - (4) Updates from DS FA Bn SO on the status of DS FA battalion communications links and systems.
 - (5) Updates from CMLO on the status and planned employment of chemical units.
- d) From DS FA battalion staff, battalion TFs, and other units about terrain requirements in order for the brigade S3 to deconflict terrain requirements for all units operating in the brigade area. [FM 101-5, Chap 3]
- 7) The DS FA battalion FDC section obtains information to include: [ARTEP 6-115-MTP Task 06-3-02-2320; FM 6-20-1, p. 3-3; FM 6-40]
 - a) Changes from the DS FA battalion commander, S3, and brigade FSO to guidance and mission concept and requirements for information to assist in the development of the commander's criteria for IFSAS and AFATDS.
 - b) Intelligence information from the DS FA battalion S2, brigade FSE, and DIVARTY S2 via IFSAS and AFATDS artillery target intelligence (ATI) files.
 - c) Changes from the brigade FSO, DS FA battalion S3, and battalion FSOs to preplanned and scheduled fires.
 - d) IPB integration with S2 and assistant S3.

- (1) Site selection.
 - (2) Intervening crest/site to crest.
 - (3) Ranges to critical targets by phase.
 - (4) Munitions available.
 - (5) Engagement criteria.
- e) Changes to firing parameters (requirements for accurate predicted fires).
 - (1) Accurate target location and size.
 - (2) Accurate firing unit location.
 - (3) Weapon and ammunition information.
 - (4) Met information.
 - (5) Computational procedures.
- f) Updated information from battery FDCs.
- 8) The brigade FSCoord, brigade FSO, and FSE section obtain fire support information. [FM 6-20, pp. 2-22, 2-23; FM 6-20-40, Chap 4; ARTEP 71-3-MTP, Task 9002/1b, 3; 9003/1a; 9004/1a]
 - a) Changes from the brigade commander to guidance and mission concept and requirements for information.
 - b) Intelligence information from the DS FA battalion S2, brigade S2, division FSE, and DIVARTY TOC.
 - (1) Enemy capabilities to detect, acquire, or attack the DS FA battalion with indirect or direct fires.
 - (2) Responses to information and intelligence queries submitted by the DS FA battalion previously.
 - (3) Target acquisition assets and plans.
 - c) Field artillery status from DS FA battalion S3.
 - (1) Current and projected locations of units.

- (2) Current and projected unit weapons status.
- (3) Current and projected ammunition status.
- d) Field artillery status from DIVARTY and division FSE.
 - (1) Organization for combat (including GS, GSR FA).
 - (2) Locations and status of GS and GSR batteries and platoons.
 - (3) Status and locations of counter-battery radars.
 - (4) Status and timing of meteorological support.
 - (5) Division or corps-directed FSCM.
- e) Task organization, personnel and equipment status, and status of preparations from battalion TF FSOs.
 - (1) COLTs.
 - (2) FISTs.
 - (3) Mortars.
 - (a) Mortar tubes and vehicles.
 - (b) Personnel.
 - (c) Locations of sections and FDCs.
 - (d) Ammunition status.
 - (4) Ammunition types.
 - (5) Ammunition quantities.
- f) Bottom-up refinements regarding projected locations, targets, and timelines from:
 - (1) Refinement of battalion TFs' fire plans and target lists.
 - (2) Refinement of intelligence information from scout platoons.
 - (3) COLTs and other observers.
 - (4) Refinement of data for FPFs.

- (5) FSCM.
 - g) Availability and locations of EW assets from DS FA battalion S2.
 - h) Information necessary to refine plans for coverage of obstacles and adjustments to FASCAM employment from the brigade engineer.
 - i) Fire support requirements from the DS FA battalion S4 and FSB commander to support the brigade support area (BSA).
- 9) The DS FA battalion RSO obtains information concerning the DS FA battalion survey operations. [ARTEP 6-115-MTP Task 06-8-02-2700, FM 6-2, pp. 15-13, 14]
- a) Changes from the DS FA battalion commander on survey priorities.
 - b) Intelligence data from the DS FA battalion S2.
 - (1) Enemy activity effecting survey operations.
 - (2) Impact of weather and terrain on survey capabilities.
 - (3) Requirements to survey sensor links.
 - (4) Impact of NBC hazards on survey operations.
 - c) Information from DS FA battalion S3.
 - (1) Status of movement planning that may affect survey operations.
 - (2) Changes to task organization that affect survey priorities.
 - (3) Additional survey requirements from brigade.
 - d) Status of survey teams:
 - (1) Equipment.
 - (2) Personnel.
 - (3) Response to timelines.
- 10) The DS FA battalion CMLO obtains information concerning friendly and enemy NBC status. [ARTEP 6-115-MTP Task 03-3-C201, C202]

- a) Changes from the DS FA battalion commander to guidance, mission concept, and requirements for information.
 - b) NBC warning and reporting system (NBCWRS) updates from brigade and DIVARTY.
 - c) Status and location updates for NBC equipment and supplies from subordinate units and DS FA battalion S4.
 - d) Status and location of decontamination and reconnaissance assets from brigade CMLO.
 - e) NBC monitoring and surveillance reports from subordinate units.
 - f) Information from the DS FA battalion S2 and intelligence section which confirms or refutes estimate of NBC threat and requirements.
 - g) Changes to brigade and subordinate units' plans in terms of projected locations, decontamination requirements, and timelines.
- 11) The DS FA battalion communications section obtains information concerning DS FA battalion communications requirements and capabilities. [ARTEP 6-115-MTP Task 06-8-01-4000, 06-7-01-4800; 06-1-01-4100]
- a) Changes from the DS FA battalion commander to guidance, mission concept, and requirements for information.
 - b) Status of communications links from DS FA battalion CPs to brigade main and tactical command post (TAC CP), battalion TF FSO/FIST/COLT, DIVARTY, reinforcing units, and other major subordinate command (MSC) CPs.
 - c) Updates from subordinate units on communications status.
 - (1) Status of communications links from DS FA battalion CPs to Btry/Plt FDCs.
 - (2) Operational status of equipment (secure and non-secure, digital and voice).
 - (3) Signal operating instructions (SOIs).
 - (4) Availability of subordinate unit communications personnel and equipment.

- d) Information from the DS FA battalion S2 and intelligence section.
 - (1) Which confirms or refutes estimate of communications requirements.
 - (2) Updates on enemy electronic and communication capabilities.
 - e) Status reports from retransmission stations.
 - (1) Positioning.
 - (2) Equipment serviceability and capability.
 - (3) Communication ranges and dead spaces.
 - f) Information from the DS FA battalion XO and S3 about changes to proposed DS FA battalion CP locations and projected timelines.
 - g) Changes to battalion TF and subordinate units' plans in terms of projected locations and timelines.
- 12) The DS FA battalion S1 section obtains information: [ARTEP 6-115-MTP Task 12-1-C404; FM 101-5, p. C-5; FM 6-20-1, pp. 7-7, 7-21, 7-22]
- a) Changes from the DS FA battalion commander to guidance, mission concept, priorities, and requirements for information.
 - b) Information from the DS FA battalion S2 and S2 section which confirms or refutes estimates of personnel situation and casualty estimates.
 - c) Personnel status from subordinate and supporting units.
 - (1) Personnel status reports (PERSTATREP).
 - (2) Critical military occupational specialty (MOS)/grade shortages.
 - (3) Absent without leave (AWOLs).
 - (4) Casualty feeder reports.
 - d) Personnel information from DIVARTY S1/adjutant general (AG).
 - (1) Availability of replacements and replacement operations.

- (2) Postal services.
 - (3) Morale welfare and recreation (MWR) support.
- e) Morale and discipline indicators from brigade, DIVARTY, and DS FA battalion special staff officers.
 - (1) Uniform code of military justice (UCMJ) rates from staff judge advocate (SJA).
 - (2) Straggler and crime rates from the division provost marshal (PM).
 - (3) Sick call and stress casualties from DS FA battalion surgeon.
 - (4) Complaints information from the inspector general (IG).
 - (5) Feedback of leader and soldier concerns from the chaplain.
- f) FSB support capabilities from the FSB support operations center.
- g) Information from the supported brigade MP platoon leader concerning EPW processing and evacuation requirements.
- 13) The DS FA battalion S4 section obtains information. [ARTEP 6-115-MTP Task 06-3-01-6430; FM 101-5, p. C-9; FM 6-20-1, pp. 7-10, 7-11]
 - a) Changes from the DS FA battalion commander to guidance, mission concept, priorities, and information requirements.
 - b) Information from the DS FA battalion S2 and S2 section which confirms or refutes estimates of the logistical situation.
 - c) Logistics reports from subordinate and supporting units.
 - (1) Status of supplies.
 - (2) Equipment readiness.
 - (3) Task organization and status of CSS elements:
 - (a) Field trains.
 - (b) Combat trains.

- (4) Maintenance, transportation, and supply updates from the brigade S4 and FSB support operations center (including plans for weapons system replacement operations [WSRO]).
 - (5) Information from the division ammunition officer (DAO) on the location of ammunition supply points and ammunition transfer points (ASP/ATPs).
- 14) The DS FA battalion surgeon obtains information. [ARTEP 6-115-MTP Task 08-3-C003; FM 6-20-1, p. 7-23, 7-24]
 - a) Changes from the DS FA battalion commander to guidance, mission concept, priorities, and information requirements.
 - b) Information from the DS FA battalion S2 and S2 section which confirms or refutes estimates of the casualty situation.
 - c) Medical updates and aerial medical evacuation capabilities from the brigade surgeon.
 - d) CL VIII supply updates from the division medical supply officer.
 - e) Additional medical support capability from the main support battalion (MSB).
 - f) Supporting unit medical support status.
 - (1) Positioning and readiness of medical assets.
 - (2) Capability to receive, triage, and evacuate casualties.
 - g) Changes to supporting unit plans in terms of projected locations and times.
 - h) Medical evacuation and support concepts from brigade surgeon for FSO/FIST personnel.
- 15) The DS FA battalion ALOC/BSOC obtain information from: [FM 6-20-1, pp. 7-1 - 7-10]
 - a) Changes from the DS FA battalion commander to guidance, mission, concept, priorities, and information requirements.
 - b) Information from the DS FA battalion S2 and S2 section which confirms or refutes estimates of the CSS situation.

- c) Changes to guidance, priorities, and requirements from the FSB commander.
 - (1) CSS task organization.
 - (2) Tasks to provide CSS support to division and corps units.
- d) Information from the MSB regarding backup CSS support.
- e) Information from the division material management center (DMMC) concerning supply and maintenance management support.
- f) Information from supported units regarding their requirements.
- g) Information from all organizations in the BSA (for defense and terrain management).
- 16) The HHB commander obtains information necessary to support the TOC and the ALOC. [FM 6-20-1, pp. 3-1, 3-6, 7-1, 7-10]
 - a) Obtains changes to DS FA battalion commander guidance, mission concept, and information requirements from the DS FA battalion S3.
 - b) Obtains information from the DS FA battalion S2 and S2 section which confirms or refutes enemy threat to the TOC/ALOC.
 - c) Obtains anticipated movement times and projected locations for the CP and combat trains from the DS FA battalion XO and S3.
 - d) Obtains information from attachments/supporting agencies concerning space, supply, and support requirements.
- b. The DS FA battalion CPs evaluate acquired information and update products. [FM 6-20-1 p. 3-1; FM 101-5, Chap 6; ARTEP 6-115-MTP Task 06-1-02-2500]
 - 1) The DS FA battalion S2 and intelligence section evaluate intelligence information and update IPB products. [ARTEP 6-115-MTP Task 06-1-02-2500]
 - a) The DS FA battalion S2 and intelligence section track the enemy to support evaluation:
 - (1) Locations (confirmed and suspected).
 - (2) Activity.

- (a) Indications of possible intent.
 - (b) Enemy reactions to friendly battle techniques.
 - (c) Specific enemy actions triggered by friendly actions or events.
- (3) Adherence to, or deviation from, postulated enemy (COA).
- (4) Losses so as to analyze strengths and capabilities.
- b) The DS FA battalion S2 and intelligence section evaluate intelligence information. [ARTEP 6-115-MTP Task 06-3-01-2512]
 - (1) Evaluate changes to guidance/direction and information.
 - (2) Compare desired DS FA battalion endstates with current intelligence situation, trends, and IPB.
 - (3) Evaluate information which confirms or refutes IPB information relative to achieving the DS FA battalion commander's intent:
 - (a) IR/PIR.
 - (b) NAIs and TAIs.
 - (4) Determine whether collection and sensor plans continue to meet DS FA battalion commander's intent.
 - (a) Positioning of assets to collect PIR and IR.
 - (b) Positioning of assets to maintain constant observation of NAIs and TAIs.
 - (c) Positioning of assets to detect and track HPTs, to provide observation for attack of HPTs, and to provide target effects for battle damage assessment (BDA) on HPT following attack.
 - (d) Positioning of Firefinder radars. [FN-NTC]
 - (5) Evaluate indicators of enemy intentions:
 - (a) NBC weapons usage or activity as a prelude to offensive operations.

- (b) Presence of enemy reconnaissance forces as a prelude to attack.
 - (c) Enemy conduct of counter-reconnaissance operations as an indicator of defense.
 - (d) Presence and massing of enemy maneuver forces as an initiation of offensive operations.
 - (e) Increase of enemy helicopter activity as an indication of air assault operations.
 - (f) Increase in enemy fighter activity and massing of transport fixed wing aircraft as indicators of airborne assault or start of offensive operations.
 - (g) Increase of enemy field artillery and rocket unit activity as an indicator of the initiation of offensive operations.
 - (h) Presence and nature of activity of enemy engineer systems as an indicator of defensive or offensive operation.
 - (i) Meaconing, interference, jamming, interception (MIJI) and other changes in enemy electromagnetic activity as prelude to offensive operations.
- c) DS FA battalion S2 and intelligence section update intelligence products. [ARTEP 6-115-MTP Task 06-3-01-2510, 2511]
- (1) Intelligence estimate (may or may not be in written form).
 - (2) Situation template (SIT TEMP).
 - (3) Event template.
 - (4) MCOO in coordination with the DS FA battalion S3.
 - (5) Intelligence portion of the DST.
 - (6) Intelligence collection plan.
 - (7) Database.
 - (8) Enemy OB.

- (10) DS FA battalion INTSUMs.
 - (11) Intelligence journal/log.
 - (12) Periodic intelligence updates to battery commanders. [FN-NTC]
- 2) The DS FA battalion S3 and operations section evaluate operational information and update operational products. [ARTEP 6-115-MTP Task 06-3-01-2110, 2120, 2150]
- a) The DS FA battalion S3 and operations section evaluate information. [ARTEP 6-115-MTP; Task 06-3-01-2120]
 - (1) Evaluate changes to guidance, direction, and information from the brigade commander or the DS FA battalion commander.
 - (2) Evaluate information which confirms or refutes intelligence preparation of the battlefield (IPB) information which may affect trigger events or the attack of HPTs.
 - (3) Evaluate desired DS FA battalion endstates with what is possible based on current DS FA battalion level of preparation, FA support plan, and trends.
 - (a) Battery status.
 - (b) CSS status.
 - (4) Evaluates impact of changes to the brigade maneuver plans on the FA support plan.
 - (5) Evaluates changes to reinforcing unit plans which might affect DS FA battalion operations.
 - (6) Evaluates DS FA battalion OPSEC based on information received from brigade and internal DS FA battalion sources.
 - (7) Evaluate information received from the force artillery HQ or GS/GSR units.
 - (8) Evaluate radar cueing plan, call for fire zone, friendly fire zones, and artillery target intelligence zones.

- b) The DS FA battalion S3 and operations section update operations products. [ARTEP 6-115-MTP Task 06-3-01-2110, 2120, 2150]
 - (1) Operational portion of the DST.
 - (2) Synchronization matrix.
 - (3) Operational graphics.
 - (4) MCOO based on input from the DS FA battalion S2 and CMLO.
 - (5) "Running" operations estimate (may or may not be in written form).
 - (6) DS FA battalion status boards and charts which track combat power and preparation status.
 - (7) Timeline of DS FA battalion preparations for battle.
 - (8) DS FA battalion operations journal/log.
 - (9) FA support plan products.
- 3) The DS FA battalion FDO and FDC section evaluate information and update FDC products. [ARTEP 6-115-MTP Task 06-3-02-2340, 3000, 2340, 2350]
 - a) DS FA battalion FDO and FDC section evaluate information. [ARTEP 6-115-MTP, Task 06-3-02]
 - (1) Evaluate changes to commander's criteria (IFSAS and AFATDS input).
 - (2) Evaluate need to update initialization data based on changes to firing parameters.
 - (3) Evaluate refinements and changes from all FSO/FSEs.
 - (a) Fire plans.
 - (b) Target lists.
 - (c) Schedules of fires.
 - (d) FSCM.

- (e) Target analyses.
 - (f) Locations of friendly units.
 - (g) No fire areas (NFA).
 - (4) Evaluate information from other staff officers.
 - (a) Status of surveys.
 - (b) Ammunition status.
 - (c) Availability of radar.
 - (5) Evaluate information and status of batteries.
 - (a) Units in ready to fire status.
 - (b) Ammunition status.
 - (c) Latest met message received.
 - (d) Requirements for registration.
- b) DS FA battalion FDO and FDC section update fire direction products.
 - (1) Situation map, FSCM, and location of friendly units.
 - (2) All initialization data; confirmation of positive check of firing data.
 - (3) All fire plans, schedules of fires, groups of fires, FPFs, and other defensive fires with most recent firing data.
- 4) Brigade FSO and FSE section evaluate information and update fire support products. [ARTEP 71-3-MTP, Task 71-3-9001, 9002]
 - a) Brigade FSO and FSE section evaluate information. [ARTEP 71-3 MTP, Task 71-3-9001/2,3]
 - (1) Changes to brigade and DS FA battalion guidance and direction.
 - (2) Desired brigade endstates with what is possible based on current fire support situation and trends.

- (3) Changes to the brigade fire support plan to ensure synchronization with battalion TF fire support plans.
 - (4) Changes to FA task organization and locations of GS and GSR FA units.
 - (5) Information which confirms or refutes IPB information relative to achieving the brigade commander's intent.
 - (6) Changes to engineer FASCAM requirements on the fire support plan.
 - (7) Changes to Army aviation and Air Force requirements which cause refinements to the fire support plan.
 - (8) Restrictive fire control measures imposed by division or other headquarters.
 - (9) Terrain requirements for FA systems through coordination with brigade S3.
 - (10) NFAs.
 - (11) Changes to the situation which should lead to convening the targeting and A2C2 teams.
- b) Update fire support products. [ARTEP 71-3-MTP, Task 71-3-9002]
- (1) Update fire support estimates (may or may not be in written form).
 - (2) Fire support execution matrix (FSEM).
 - (3) Target lists.
 - (4) HPT list.
 - (5) Fire support graphics.
 - (6) Priority targets.
 - (7) FSCMs.
 - (8) Observation plan.

- (9) Aviation plan (with brigade ALO, brigade NGLO, and brigade Army Aviation LNO):
 - (a) ACAs.
 - (b) SEAD.
- 5) The DS FA battalion RSO evaluates information and updates DS FA battalion survey products. [ARTEP 6-115-MTP, Task 06-8-02-2700]
 - a) The DS FA battalion RSO evaluates information. [ARTEP 6-115-MTP, Task 06-8-02-2700]
 - (1) Changes to guidance and direction, information, and priorities from the DS FA battalion S3.
 - (2) Desired DS FA battalion endstates with what is possible based on current survey situation and trends.
 - (3) Changes to FA task organization to determine impact on survey plan.
 - b) The DS FA battalion RSO updates survey products.
 - (1) Updates survey estimate (may or may not be in written form).
 - (2) Survey plan.
- 6) The DS FA battalion CMLO evaluates information and updates DS FA battalion NBC products. [ARTEP 3-117-40 MTP, Task 3-4-0003, 0004, 0007, 0017]
 - a) The DS FA battalion CMLO evaluates information. [ARTEP 3-117-40 MTP, Task 3-4-0004, 0007]
 - (1) Changes to guidance and direction and information from the DS FA battalion S3.
 - (2) Desired DS FA battalion endstates with what is possible based on current NBC situation and trends.
 - (3) Information which confirms or refutes IPB information relative to achieving the DS FA battalion commander's intent.

- (4) Answers to intelligence queries which alter initial assessment of enemy NBC capabilities.
 - (5) Adjustments to plans from subordinate units which affect DS FA battalion NBC plans.
 - (6) Changes to divisional defensive NBC capabilities.
- b) The DS FA battalion NBC section updates NBC products. [ARTEP 3-117-40, MTP 3-4-0003; 0017]
 - (1) Updates NBC estimate (may or may not be in written form).
 - (2) MOPP analysis.
 - (3) Enemy NBC capabilities.
 - (4) NBC equipment and supplies inventories.
 - (5) NBC overlays and graphics.
 - (6) MCOO with contaminated areas.
- 7) The DS FA Bn SO and communications section evaluate information and update DS FA battalion communication products. [ARTEP 6-115-MTP, Task 06-5-02-4000, 06-1-01-4100]
 - a) The Bn SO and communications section evaluate information.
 - (1) Changes to DS FA battalion commander's guidance, direction, and information.
 - (2) Desired DS FA battalion endstates with what is possible based on current communication situation and trends.
 - (3) Information which confirms or refutes IPB information relative to achieving the DS FA battalion commander's intent.
 - (4) Answers to intelligence queries which alter initial estimate of enemy electronic and communications capabilities.
 - (5) Adjustments to plans from DS FA battalion CPs and subordinate units on DS FA battalion communications planning.

- (6) Results of communications checks.
- b) The DS FA battalion communications section updates communications products.
 - (1) Updates signal estimates (may or may not be in written form).
 - (2) Communications network overlay, area coverage overlay, and dead space overlay.
 - (3) SOIs.
- 8) All DS FA battalion CSS officers (XO, S1, S4, surgeon) evaluate information and update CSS products. [FM 63-20, Chap 3 and 6; FM 6-20-1, Chap 7; ARTEP 6-115-MTP, Task 06-3-01-2170, 12-1-C404, 06-3-01-6430, 08-3-C002, 06-3-01-6300]
 - a) The DS FA battalion CSS officers evaluate information.
 - (1) The DS FA battalion S1 and section evaluate information.
 - (a) Changes in guidance, direction, and orders from the DS FA battalion commander.
 - (b) Desired DS FA battalion endstate with what is possible based on personnel status.
 - (c) Personnel reports from the batteries to determine changes to combat power and troops available that impact on DS FA battalion commander's assessment.
 - (d) Personnel assignment priorities relative to meeting DS FA battalion commander's intent.
 - (e) Casualty reporting procedures to ensure timely replacement of personnel.
 - (f) Postal operations to ensure that mail is distributed to assigned personnel and to those attached to brigade elements (FSOs, FISTs, COLTs).
 - (2) The DS FA battalion S4 and S4 section evaluate information.

- (a) Changes to DS FA battalion commander's guidance, direction, and information.
- (b) Logistics reports from the batteries on all classes of supply.
- (c) Evaluate trains concept, organization, and location for ability to provide support to meet commander's intent and support the tactical plan. [ARTEP 6-115-MTP; 06-2-01-6000/2]
- (d) Evaluate DS FA battalion supply operations for ability to support DS FA battalion commander's intent. [ARTEP-6-115-MTP; 06-3-01-6430]
 - 1 Priority distribution.
 - 2 Availability and stockage levels of petroleum, oils, and lubricants (POL) products.
 - 3 Status requirements and other information input from FSB.
- (e) Availability of ground transport assets.
- (f) Availability of air transport assets.
- (3) The DS FA battalion maintenance officer and maintenance section evaluate information: [ARTEP 6-115-MTP; Task 06-3-01-6300, 06-2-01-6000]
 - (a) Priorities for evacuation and repair of damaged equipment as directed by the DS FA battalion commander.
 - (b) On-hand CL IX, available supply list (ASL), and prescribed load list (PLL) stockage levels.
 - (c) Time projections for repair and return of critical combat vehicles (howitzers, ammunition vehicles, and FIST vehicles).
- (4) The DS FA battalion ammunition officer and ammunition section evaluate information: [ARTEP-6-115-MTP, Task 06-3-01-2170; 06-3-02-6500]

- (a) On-hand quantities and anticipated requirements for CL V as reported by the batteries in coordination with the DS FA battalion S3.
 - (b) Need for prepositioned stocks or special ammunition for operation to meet commander's intent.
- (5) The DS FA battalion surgeon/physician's assistant (PA) and medical section evaluate information. [ARTEP-6-115-MTP; Task 06-3-01-6810]
 - (a) Changes in direction or guidance from the DS FA battalion commander.
 - (b) Evacuation plan and health services plan for adequacy to meet the commander's intent.
 - (c) Current state of health of the command.
- b) The DS FA battalion CSS officers update CSS products.
 - (1) DS FA battalion S1 section updates personnel information. [ARTEP 6-115-MTP, Task 12-1-C404]
 - (a) Updates personnel services estimate (may or may not be in written form).
 - (b) Personnel status of subordinate and supported units.
 - (c) Casualty feeder reports.
 - (d) Personnel priorities as directed by the DS FA battalion commander.
 - (2) DS FA battalion S4 and S4 section update logistical information. [ARTEP 6-115-MTP, Task 06-3-01-6430]
 - (a) Supply and transportation portions of updated logistics estimates (may or may not be in written form).
 - (b) Supply:
 - 1 Percent fill of combat basic loads.

- 2 Configuration and location of immediate and emergency resupply (CL III and V) loads and push packages.
 - 3 Adequacy of CSS supply assets.
 - 4 Supply priorities as directed by the DS FA battalion commander.
 - 5 Establishment and fill of stockpiles and caches.
- (c) Transportation:
 - 1 Schedules and priorities.
 - 2 Status of supplies, equipment, and materials requiring transport.
 - 3 Status of logistics packages (LOGPAC).
 - 4 Transportation recovery and back-haul plans.
 - 5 MSR and ASR traffic and route conditions.
- (3) The DS FA battalion maintenance officer (BMO) and maintenance section update maintenance information: [ARTEP 6-115-MTP, Task 06-3-01-6300]
 - (a) Number and type of equipment systems on hand and operational.
 - (b) Systems which are non-mission capable and repairable.
 - (c) Projections for repair and return of systems and other essential equipment.
 - (d) CL IX, ASL, and PLL stockage levels.
 - (e) Maintenance priorities and guidelines as directed by the DS FA battalion commander.
- (4) The DS FA battalion ammunition officer and ammunition section update information. [ARTEP 6-115-MTP; Task 06-3-01-2170; 06-3-02-6500]

- (a) Percent fill of combat basic loads.
 - (b) Configuration and location of immediate and emergency resupply loads.
 - (c) Establishment and fill of stockpiles and caches.
 - (d) Ammunition lots and types of propellants available (e.g., white-bag vs. green-bag, availability of RAP).
- (5) The DS FA battalion surgeon updates medical information. [ARTEP 6-115-MTP, staff 08-3-C0002]
 - (a) Medical evacuation capabilities.
 - (b) Medical material (CL VIII) stocks and resupply availability.
 - (c) Reinforcement and reconstitution of medical assets.
 - (d) Disposition and capability of DS FA battalion medical assets.
 - (e) Medical priorities as directed by the DS FA battalion commander.
 - (f) Update all AXPs and battalion aid stations, and coordinate for external support.
- 9) The HHB commander evaluates information and updates products/assessments.
 - a) Capability to move, secure, and support the DS FA battalion CPs.
 - b) Assessment of capabilities versus requirements to move, secure, and support the DS FA battalion TOC/ALOC to the DS FA battalion S3.
- c. The DS FA battalion CPs maintain status. [FM 6-20-1, pp. 3-1 - 3-6]
 - 1) DS FA battalion TOC maintains status. [FM 6-20-1, pp. 3-1 - 3-6]
 - a) Information which supports the DS FA battalion commander's CCIR.
 - b) Current and projected combat power status of subordinate units (e.g., green-amber-red).

- c) Current operations and intelligence map.
 - (1) Operations overlay (maneuver units in brigade sector, boundaries, all fire support units in brigade sector).
 - (2) Intelligence overlays such as:
 - (a) Situation template overlay.
 - (b) Event template overlay.
 - (3) MCOO.
 - (4) Fire support overlay.
 - (5) Position area overlay.
 - (6) NBC overlay.
 - (7) CSS overlay.
 - (8) Disposition of collection assets/target acquisition overlay.
 - (9) Information on external units conducting R&S operations to prevent fratricide.
 - (10) Dispositions and status of patrols and other R&S and security forces.
 - (11) Other decision aids and charts as required such as:
 - (a) DST.
 - (b) Synchronization matrix.
 - (c) FSEM.
 - (12) Current assessment of effectiveness of fires (e.g., BDA).
[FN-NTC]
 - (13) FSCM including ACAs.
- d) Status of key communications links.
- e) Status of preparation activities to ensure compliance with stated mission timelines.
- f) Plans map (with overlays for future operations).

- g) Journals/logs.
- 2) DS FA battalion ALOC maintains status. [FM 6-20-1, Chap 7]
 - a) Current operations and intelligence map.
 - (1) Operations overlay (DS FA battalion, higher and adjacent units).
 - (2) Rear operations, security, and threat overlay.
 - (3) Intelligence situation overlay.
 - (4) Situation template overlay.
 - (5) Event template overlay.
 - (6) MCOO.
 - (7) Fire support overlay.
 - (8) CSS situation map and overlays.
 - (a) MSR and ASR.
 - (b) CSS locations, current and projected.
 - (c) Decontamination sites.
 - (d) Ambulance exchange points (AXPs).
 - b) Decision aids and charts to assist in maintaining status such as:
 - (1) DST.
 - (2) Synchronization matrix.
 - (3) Current and projected personnel and equipment status.
 - (a) Personnel strength.
 - (b) Operational equipment strength.
 - (c) Status of supplies.
 - (d) Casualties.
 - (e) Replacement personnel status/location.

- (f) Damaged and non mission capable (NMC) vehicles and equipment.
- (4) CSS staff journal.
- 3) The DS FA BSOC maintains status:
 - a) Current operations and intelligence map.
 - (1) Operations overlay (DS FA battalion, brigade and adjacent units).
 - (2) Rear operations, security, and threat overlay.
 - (3) Intelligence overlay.
 - (4) Situation template overlay.
 - (5) Event template overlay.
 - (6) CSS situation map and overlays.
 - (a) MSR and ASR.
 - (b) CSS locations, current and projected.
 - (c) Decontamination sites.
 - (7) Location and evacuation of EPW and their equipment.
 - (8) Location and evacuation of displaced persons.
 - b) Decision aids, charts, and status boards to assist in maintaining status such as:
 - (1) DST.
 - (2) Synchronization matrix.
 - (3) Current and projected personnel and equipment status.
 - (a) Personnel strength.
 - (b) Operational equipment strength.
 - (c) Status of supplies.
 - (d) Casualties.

- (e) Replacement personnel.
 - (f) Damaged and NMC vehicles and equipment.
- (4) Status of key communications links.
- (5) CSS staff journal.
- d. The DS FA battalion CPs and staff communicate information. [FM 6-20-1, pp. 3-1 - 3-3; FM 6-20-40, p. 26; FM 6-20-50, App C; FM 101-5, Chap 5 and 6, App A, B and L; FN-NTC]
 - 1) All CPs and staff disseminate information. [FM 6-20-1, pp. 3-1 - 3-3]
 - a) Provide briefings to the DS FA battalion commander on the status of mission preparedness.
 - b) Each staff representative communicates critical information needed to:
 - (1) Coordinate DS FA battalion actions and plans.
 - (2) Monitor the situation.
 - (3) Direct DS FA battalion actions.
 - c) All staff officers remain alert for and ensure that critical information they receive is passed to other staff officers who require the information as soon as it is received.
 - d) All staff officers and subordinate commanders develop and make appropriate recommendations about mission preparation to battalion S3, XO, or commander.
 - 2) The DS FA battalion S2 section communicates enemy's situation, evaluations of enemy capabilities, and analyses of PIR, IR, and routine information to: [ARTEP 6-115-MTP, Task 06-3-01-2511]
 - a) Brigade and DIVARTY S2.
 - b) Reinforcing unit S2s.
 - c) DS FA battalion TOC.
 - d) DS FA battalion ALOC.
 - e) The brigade FSO/targeting officer.

- f) Subordinate batteries. [FN-NTC]
- 3) The DS FA battalion S3 and operations section communicate operational information. [ARTEP 6-115-MTP, staff 06-3-01-2120, 2150]
 - a) Examples:
 - (1) WARNOs/FRAGOs.
 - (2) Coordinating instructions.
 - (3) Reports of the DS FA battalion situation.
 - (4) Evaluations of DS FA battalion state of preparedness.
 - (5) Answers to CCIR and IR.
 - b) To: [FM 101-5, App A]
 - (1) DS FA battalion commander.
 - (2) DS FA battalion XO.
 - (3) DS FA battalion staff.
 - (4) Batteries and reinforcing units.
 - (5) DS FA battalion ALOC.
 - (6) Brigade FSO.
 - (7) Brigade TAC CP.
- 4) The DS FA battalion FDO and FDC section disseminate the fire plan, target lists, support geometry, attack criteria, subscriber tables, and instructions for degraded operations and continuous operations (CONOPS) to all subordinate and supporting units.
- 5) The brigade FSO, targeting officer and FSE section communicate DS FA battalion fire support situation and analysis of CCIR, IR, and routine information. [FM 101-5, App A; ARTEP 71-3-MTP, Task 71-3-9002/2, 3]
 - a) To: [FM 101-5, App A; ARTEP 71-3-MTP, Task 71-3-9002/2, 3]
 - (1) Assistant brigade engineer.
 - (2) Brigade S2.

- (3) Brigade S3.
 - (4) DIVARTY S3.
 - (5) Division FSE.
 - (6) DS FA battalion S3.
 - (7) Subordinate battalion TF FSOs.
 - (8) Brigade ALO, NGLO and Army aviation LNO.
 - (9) FSB commander or brigade officer responsible for rear operations.
 - (10) DS FA battalion staff officers who need the information.
- b) The brigade FSO and FSE section coordinate with adjacent and higher FSEs and DS FA battalion TOC to ensure that: [ARTEP 71-3-MTP, Task 71-3-9002/2]
- (1) Planned brigade fire support will not interfere with other fire support systems, will not disrupt adjacent unit operations, and will not jeopardize troop safety.
 - (2) Fire support information and products (target lists, FSEM, CAS requests, and ATO) are exchanged and refined.
- c) The brigade FSO and FSE section coordinate with DS FA battalion S3 and TF FSOs to verify: [ARTEP 71-3-MTP, Task 71-3-3001/2]
- (1) Control measures delineating mutual boundaries.
 - (a) Directed by division.
 - (b) Internal boundaries (TFs, scouts, security forces).
 - (2) Air space control measures.
 - (3) Boundaries and fire support coordinating measures.
 - (a) COLT/FIST no fire areas (NFAs).
 - (b) RFL.

- (4) Signals and conditions under which restrictive measures will be emplaced or lifted.
- 6) The DS FA battalion CMLO communicates the DS FA battalion NBC situation and analysis of CCIR, IR, and routine information. [FM 101-5, App A; ARTEP 3-117-40 MTP, Task 3-4-0007; 0009; 0016]
 - a) To:
 - (1) Brigade CMLO.
 - (2) DS FA battalion subordinate commanders and leaders.
 - (3) Supporting NBC units (e.g., decontamination, reconnaissance).
 - (4) DS FA battalion staff officers who need the information.
 - b) The DS FA battalion CMLO coordinates with the brigade CMLO and supporting decontamination units to confirm and organize deliberate decontamination plans and preparations. [ARTEP 3-117-40 MTP, Task 3-4-0005]
- 7) The Bn SO and communications section reports DS FA battalion communications situation and other routine information. [FM 101-5, App A; ARTEP 71-3 MTP, Task 71-3-1102/4]
 - a) To:
 - (1) Brigade signal officer.
 - (2) DS FA battalion subordinate commanders and leaders.
 - (3) DS FA battalion staff officers who need the information.
 - b) The DS FA battalion communications section coordinates with adjacent units and brigade headquarters. [AN]
 - (1) Confirms allocation and locations of signal assets and capabilities.
 - (2) Acquire signal equipment to supplement DS FA battalion CPs and subordinate units which require special communications equipment.
- 8) DS FA battalion CSS officers report administrative and logistical situation and routine information to DS FA battalion staff and external sources.

- a) To:
 - (1) DS FA battalion subordinate commanders and leaders.
 - (2) Brigade S1, Div AG, brigade S4, DMMC, and brigade surgeon.
 - (3) FSB and MSB staffs.
 - (4) DS FA battalion staff officers who need the information.
- b) DS FA battalion CSS staff coordinates with DS FA battalion staff and DS FA battalion units: [FM 101-5, App A]
 - (1) To identify additional requests for support.
 - (a) Transportation assets.
 - (b) Medical augmentation.
 - (c) Repair of vehicles and weapons systems; recovery of damaged vehicles; transportation for return of repaired vehicles.
 - (d) Supply support.
 - (2) To coordinate the transportation of supplies and cargo through DS FA battalion units.
 - (3) To coordinate routine, emergency, and critical resupply operations (e.g., delivery times, types, and quantities of supplies required).
 - (4) To coordinate receipt and processing of replacements.
 - (5) To track evacuation of personnel and casualties.
 - (6) To process awards, decorations, promotions, and legal actions.
 - (7) To coordinate for security protection and support in general of CSS units operating forward.
- c) DS FA battalion S4 coordinates with the DS FA battalion S3 to deconflict terrain requirements and projected locations for:
 - (1) Ammunition transfer points (ATPs).

- (2) Ammunition supply points (ASPs).
 - (3) Forward arm and refuel points (FARPs).
- d) DS FA battalion CSS staff performs coordination with FSB and supporting CSS headquarters: [FM 6-20-1, pp. 7-8-10]
 - (1) To process requests for support of DS FA battalion.
 - (a) Additional transportation assets.
 - (b) Medical augmentation and support.
 - (c) Support of resupply operations.
 - (d) DS and GS maintenance support for vehicles and weapon systems; recovery of damaged vehicles and weapon systems; return of repaired vehicles and weapon systems.
 - (2) DS FA battalion S4 coordinates the transportation of DS FA battalion supplies and cargo through adjacent units based on the locations of the BSA and other brigade or division supply points.
 - (3) DS FA battalion S4 coordinates routine, emergency, and critical resupply of the DS FA battalion (e.g., delivery times, types, and quantities of supplies required).
 - (4) DS FA battalion S1 receives and processes replacements.
 - (5) DS FA battalion S1 tracks evacuation of personnel and casualties.
 - (6) DS FA battalion S1 processes awards, decorations, promotions, and legal actions of DS FA battalion personnel.
- 3. **The direct support field artillery battalion commander visualizes the battlefield.**
[TRADOC Pam 11-9, Chap 7 and App D]
 - a. The DS FA battalion commander updates his estimate based on his assessment of the current situation. [FM 100-5, pp. 2-14/15; FM 101-5, pp. 1-4 - 1-11, 3-85, Chap 4 and App C; FM 71-3, p. 3-2; Battle Command, Leadership and Decision Making, BCBL]
 - 1) Mission.

- a) Identifies changes to:
 - (1) The brigade and division commander's mission and intent.
 - (2) The brigade concept of the operation.
 - (3) The concept of fires.
 - b) Based on reports from the DS FA battalion staff, LNOs, and subordinate/supporting commanders, analyzes progress and completion of DS FA battalion preparation activities and needed endstate before the battle to include:
 - (1) Planning and refinement of plans.
 - (2) Coordination.
 - (3) DS FA battalion elements' preparations.
- 2) Enemy.
- a) Validity of estimate.
 - (1) Changes in enemy strength.
 - (2) Changes in enemy capabilities.
 - (3) Changes in projected enemy COA.
 - (4) DS FA battalion commander's designated essential elements of friendly information (EEFI).
 - b) Collection plan responsiveness.
 - (1) Whether PIR and IR are being filled.
 - (2) Adequacy of DS FA battalion collection assets' positions, activities, and objectives.
 - (a) FISTs, FOs, and COLTs.
 - (b) Army aviation elements.
 - (c) UAVs and ground support radars.
 - (d) Adjacent and forward units.
 - (e) Radars.

- (3) Need and adequacy of external information sources.
 - (a) Forward air control (FAC) and CAS aircraft.
 - (b) Brigade staff and assets.
 - (c) DIVARTY.
- (4) Validity of the initial IPB and threat analysis documents.
 - (a) SIT TEMP.
 - (b) Event template.
 - (c) Order of battle.
 - (d) Obstacles and fortification locations.
 - (e) Intelligence estimate.
- 3) Troops.
 - a) Validity of designated FFIR.
 - b) Disposition and locations of:
 - (1) Brigade units. [ARTEP 71-3-MTP, Task 71-3-3003/3]
 - (2) DS FA battalion and other supporting FA and fire support assets. [ARTEP 6-115-20-MTP, Task 06-3-02-110/3]
 - (3) Target acquisition and collection systems. [ARTEP 6-115-MTP, Task 06-1-02-2600, 2001]
 - c) Composition and task organization changes of subordinate units. [ARTEP 6-115-MTP, Task 06-3-01-2120]
 - d) Strengths of subordinate units. [ARTEP 6-115-MTP, Task 06-3-01-2120]
 - e) Peculiarities and weaknesses of subordinate units' preparation and the implementation of the FA support plan. [ARTEP 6-115-MTP, Task 06-3-01-2120]
 - f) Vulnerability of friendly units to enemy NBC attacks. [ARTEP 6-115-MTP, Task 20/06-3-02-1240]

- g) Losses (e.g., to enemy action, maintenance problems) of artillery tubes. [FN]
- h) Loss (e.g., to enemy action, maintenance) of target acquisition systems, or equipment (e.g., FIST, COLTs, radars, FOs). [FN]
- i) Losses or shortages of target acquisition personnel. [FN]
- j) Subordinate unit plans and preparations, which include:
 - (1) Subordinate commander's understanding of and plans to achieve the brigade commander's intent and fire support guidance.
 - (a) Battery commander's briefback and backbrief of their missions.
 - (b) Visits to units.
 - (2) Physical preparation of target acquisition systems and observers (e.g., FOs, enlisted terminal attack controller [ETAC], SALTs, COLTs).
 - (3) Occupation of firing positions and preparations to fire by batteries.
 - (a) Troop leading procedures.
 - (b) Pre-combat inspections.
- 4) Terrain.
 - a) Changes to initial terrain estimate and impact of differences on the concept of the operation.
 - (1) Terrain factors.
 - (a) Trafficability.
 - (b) Degree of slope or cant.
 - (c) Ability to emplace vehicles' spades.
 - (d) Site to crest.
 - (e) Avenues of approach.

- (2) Obstacles and progress of DS FA battalion efforts to reinforce the terrain.
 - b) Weather and forecasted weather factors' validity.
 - (1) Visibility (including fog and cloud cover) and light data.
 - (2) Effects of weather.
 - (a) Impact on trafficability.
 - (b) Impact of met on delivery of fires.
- 5) Time.
 - a) Accomplishment of key mission preparations in accordance with planned timelines.
 - b) Based on what has and has not been accomplished, sufficiency of time available to complete all tasks.
- 6) The DS FA battalion commander projects the outcome of the current battle based on his evaluation of the current plan and DS FA battalion preparedness by using BOS assessment. [FM 101-5, pp. 1-11 - 1-17, 4-48, App C]
 - a) Intelligence.
 - (1) The DS FA battalion commander assesses HPTs by phase.
 - (2) The DS FA battalion commander assesses the collection plan to determine if the products will provide the necessary trigger for attack of HPTs approved by the brigade commander.
 - (3) The DS FA battalion commander assesses the critical targets by phase of maneuver to ensure that unit moves are integrated.
 - b) Fire support.
 - (1) The DS FA battalion commander determines if fire plans and target lists have been refined for changes due to:
 - (a) Bottom-up refinements.
 - (b) Refinement of target location.

- (a) Refinement of firing data.
- (2) The commander assesses all FSCM to determine if they are:
 - (a) Current.
 - (b) Accurate.
 - (c) Proper to support the tactical plan.
- (3) The DS FA battalion commander ensures that adequate fire support is available for forces in contact.
- (4) The DS FA battalion commander assesses the FA support plan to ensure that it supports the fire support plan and provides for priority to the main effort.
- (5) The DS FA battalion commander ensures adequate fire support for the brigade R&S and counter-reconnaissance forces.
- (6) The DS FA battalion commander assesses the target acquisition plan.
 - (a) Status of radars.
 - (b) Radar cueing plan.
 - (c) Primary and alternate trigger for each HPT.
- c) Mobility and survivability.
 - (1) Commander reviews obstacle plan for:
 - (a) Status of obstacle emplacement.
 - (b) Fires planned to support purpose of all obstacles.
 - (c) Principal and alternate observer designated to trigger fires on each obstacle.
 - (d) Changes to FASCAM employment plans required by the brigade engineer and brigade FSO based on new information.
- d) CSS.

- (1) CSS priorities based on new information.
 - (2) Supply support adequate to support the operation.
 - (3) Delivery of supplies to DS FA battalion units on time to support the operation.
 - (4) Sufficient transportation assets available and operational to support the operation.
 - (5) Adequate personnel fill to enable DS FA battalion units to accomplish their missions and tasks.
 - (6) Status of morale in the DS FA battalion.
 - (7) Current and projected state of maintenance of equipment in the DS FA battalion.
 - (8) Status of medical personnel, supplies, and equipment to support the operation.
- e) Command and control.
- (1) Status of key communications links within the DS FA battalion, with supported units FSO/FIST, with brigade and DIVARTY, and with the reinforcing battalion (digital and voice).
 - (2) Current and projected locations of DS FA battalion CPs provide for continuous command and control.
- b. The DS FA battalion commander projects the outcome of the current mission based on his evaluation of the current plan and DS FA battalion preparedness. [FM 101-5, p. 1-11 - 1-17, 4-48]
- c. The DS FA battalion commander anticipates future requirements and actions (sequels) based on his projection of the outcome of the current mission. [FM 101-5, pp. 1-15, 4-46, and App C]
- 1) The DS FA battalion staff assists the DS FA battalion commander in his assessment of future requirements by providing information. [AN]
 - 2) Mission.
 - a) The brigade and division commander's intents are continuously reviewed for probable mission changes.

- b) Friendly capabilities and templated/anticipated enemy capabilities are compared to determine projected endstates and probable future plans.
- c) Branches, sequels, and alternative COAs for the current mission are reviewed to determine potential for future planning.
- d) Risk criteria are reassessed.
- e) On-order missions of artillery units in sector are reviewed.
- 3) Enemy.
 - a) Satisfied PIR, IR, and other intelligence information are reviewed for deviations from original templated enemy action; examples:
 - (1) Enemy's course of action is not as anticipated.
 - (2) Confirmed enemy strength and dispositions are not the same as templated and predicted.
 - (3) The DS FA battalion commander may adjust PIR and IR.
 - (4) The DS FA battalion commander decides whether there is need to change designation of NAIs, TAIs, and HPTs.
 - b) SIT TEMP and event templates are updated and assessed to appraise the DS FA battalion's posture to meet newly identified potential situation.
 - c) HPTs are updated, and the attack-guidance matrix (AGM) and the DST are integrated based on changes to the enemy situation.
- 4) Troops.
 - a) Future mission capability of subordinate units is projected.
 - (1) Combat power, current and projected, required to achieve new or previously unidentified tasks.
 - (2) Projected equipment and personnel status.
 - (3) Ability to move, emplace, and fire based on changes to terrain factors.
 - (4) Capability to range critical targets and mass fires as required to meet new conditions or missions.

- (5) Projected force ratios of friendly forces are compared to updated enemy force capabilities to assess the DS FA battalion's ability to achieve desired endstate and meet future requirements.
- (6) Projected ammunition status based on ASR/CSR and ability to resupply.
- (7) Target acquisition capability available in the brigade sector.
- (8) On-order missions and positioning of artillery units.
- (9) Risk to mission accomplishment and safety hazards.
- b) Necessary changes to positioning of DS FA battalion security elements and subordinate unit local force protection activities are determined to:
 - (1) Counter threats not previously identified during the initial IPB.
 - (2) Meet requirements generated by changes to requirements for withdrawal, battle hand-over, reconstitution, or preparation for follow-on missions.
 - (3) Replace losses in order to continue force protection actions.
- c) Necessary changes to the planned role and employment of fire support assets are determined.
- d) Impact of DS FA battalion plan on other units' plans.
- e) Impact of other units' plans on DS FA battalion plans.
- f) Adequacy of future logistics support areas and MSR/ASRs is determined.
- g) Adequacy of supplies to meet new requirements is determined.
- h) The DS FA battalion commander reviews and updates FFIR as needed.
- 5) Terrain.
 - a) Impact of terrain factors in and around the proposed firing positions.

- b) Impact of projected weather.
 - c) Ability to range projected HPTs with the predominant propellant available.
 - d) Deconfliction of available terrain with brigade XO.
- 6) Time.
 - a) Projections of time available versus time required to meet new mission requirements.
 - b) Changes to mission timelines necessitated by enemy activities.
- d. The DS FA battalion commander decides whether the plan needs to be changed. [FM 101-5, p. 4-48]
 - 1) The DS FA battalion commander decides the current plan meets the assessed situation and continues to monitor and direct DS FA battalion battle preparations. [FM 101-5, p. 4-48]
 - 2) The DS FA battalion commander decides the plan must be modified. [FM 101-5, p. 4-48]
 - a) The DS FA battalion commander decides to initiate a FRAGO; considers: (See task 4 for description of how to develop and issue this FRAGO) [FM 101-5, pp. 1-14 - 1-16]
 - (1) Whether COAs previously developed can be modified and developed as the new plan.
 - (2) Time available to develop, coordinate, implement, and rehearse a new plan.
 - (3) Subordinate units' time to complete new preparation requirements under the new plan and task organization.
 - (4) The DS FA battalion staff's ability to continue to monitor and direct current DS FA battalion activities while meeting new planning requirements.
 - b) The DS FA battalion commander assesses the impact of new FRAGOs from brigade.
 - (1) Time required to plan and prepare for new mission based on current mission timelines.

- (2) Ability of the DS FA battalion to respond to the new situation based on level of mission preparedness.
 - (a) Fire units available to respond without impacting DS FA battalion ability to perform the current mission.
 - (b) Availability of CS, CSS, and supplies to support the new situation without impacting on support necessary for the current mission.
 - (3) Capability of the staff to dedicate time and effort to plan and coordinate new missions; impact of diverting key staff members from monitoring preparations for the current mission to planning for a new mission.
 - c) The DS FA battalion commander determines effects on the military decision-making process (MDMP) based on complexity, potential probable confusion on the battlefield, staff availability, and time available. [FM 101-5, Chap]
 - e. The DS FA battalion commander informs the brigade commander of the results of his battalion assessment. [AN]
4. **The direct support field artillery battalion commander directs changes to the operation or plan.** [TRADOC Pam 11-9, Chap 7 and App D]
- a. The DS FA battalion commander and/or staff issue WARNOs to alert staff members and subordinate elements that the plan will be changed. WARNOs may include: [FM 101-5, p. 4-55]
 - 1) The enemy situation; battlefield events; and the friendly mission, task, or operation.
 - 2) The brigade and division commander's missions.
 - 3) The brigade and division commander's intents.
 - 4) The DS FA battalion commander's intent statement.
 - 5) The earliest time of movement or degree of notice the DS FA battalion commander gives to the main body.
 - 6) Orders for preliminary action, advanced party reconnaissance, and selection of position.

- 7) Service support instructions, any special equipment necessary, regrouping of transportation, or preliminary moves to assembly areas.
 - 8) The rendezvous point or time for assembly of an orders group, whether commanders or representatives are to attend, and time needed for issuing written orders.
- b. The DS FA battalion commander conducts the MDMP in a time constrained environment. [FM 101-5, pp. 4-41 - 4-60]
- 1) The DS FA battalion staff provides information and recommendations as required.
 - 2) When planning changes to current orders during the preparation phase of the battle, the DS FA battalion commander must consider:
 - a) Using products developed during the MDMP for the current mission as reference points from which modifications are made to predetermined branches and sequels.
 - (1) Modifications to fire support plan:
 - (a) Approved by brigade commander.
 - (b) Assess requirement to modify existing HPTs.
 - (c) Modifications to HPTs may require modification of other products:
 - 1 DST.
 - 2 AGM.
 - 3 FSEM.
 - (2) Terrain analysis.
 - (a) Impact on range to critical targets by phase as a result of changes to HPTs.
 - (b) Assess requirements for new positions and movement plans using existing products.
 - 1 MCOO.
 - 2 Modify position area overlay.

- (3) Enemy order of battle and updated IPB products.
 - (a) Modify sensor collection plan.
 - (b) Modify triggers.
 - (4) Updated staff estimates.
 - (a) DS FA battalion capabilities.
 - (b) Constraints.
 - (5) PIR, EEFI, and FFIR requested by the commander.
- b) Typically, modifications to existing fire plans may provide the synchronization of fire support required to support a new course of action. If not, the FSO/FSCOORD may be required to use quick fire planning techniques (addressed in function analysis of brigade BF 15).
 - c) The DS FA battalion commander and staff anticipate the outcome of the current fight to begin considering future requirements and actions.
 - d) Components of the DS FA battalion commander's assessment, based on the situation, are:
 - (1) Current situation compared to required battle endstates of friendly and enemy forces.
 - (2) Recognition of similarities or differences between initial plan and new requirements.
 - (3) Assessment of friendly force posture, enemy probable actions and postures, and battlespace.
- 3) The DS FA battalion commander develops an FA support plan; considers: [FM 101-5, p. 4-48]
 - a) The brigade commander's intent for fires, the designated HPTs, and critical targets by phase.
 - b) The status of ammunition by type and availability of propellant. (white or green bag).
 - c) Whether the DS FA battalion and reinforcing battalion (if any) can satisfy the commander's intent for fires.

- d) The commander may request information from the staff to support his COA development. The staff:
 - (1) Uses products and analyses developed during the initial mission MDMP to define branches and sequels for consideration.
 - (2) Provides recommendations to modify existing branches and sequels to meet new requirements.
 - (3) Provides recommendations on developing new branches and sequels based on new requirements.
- e) METT-T factors:
 - (1) Mission: identifies specified and implied tasks which his DS FA battalion must accomplish.
 - (2) Enemy: the DS FA battalion commander identifies:
 - (a) Designated HPTs and other critical targets by phase from the fire support plan.
 - (b) Requirement for sensor collection plan and triggers linked to HPTs.
 - (3) Terrain and weather: the DS FA battalion commander identifies relevant or specific aspects of terrain: slope, cant, site to crest, predominant range to critical HPTs, and changes in met.
 - (4) Troops: the DS FA battalion commander analyzes the DS FA battalion and reinforcing battalion in terms of capability relative to what he believes necessary to accomplish the mission.
 - (a) Capabilities, strengths, and weaknesses of subordinate commanders and units.
 - (b) Weapon systems and equipment.
 - (c) Disposition.
 - (d) Supplies.
 - (e) Troop rest and morale.

- (5) Time: the DS FA battalion commander determines the time available for planning, preparing, and executing the operation for both enemy and friendly forces. He integrates the time for movement with the time of attack of critical targets using the AGM and FSEM.
- 4) The DS FA battalion commander conducts mission risk assessment to ensure that conditions most likely to cause mission failure and accidents (including fratricide) have been mitigated.
 - a) DS FA battalion units have been tasked within their capabilities.
 - b) Procedural and positive risk-reduction control measures have been implemented, for example:
 - (1) Emphasizes situational awareness.
 - (2) Emphasizes positive target identification.
 - (3) SOPs are consistent with doctrine and are adhered to.
 - (4) Doctrinally correct terminology is applied to all control measures; e.g., fire support coordination lines (FSCLs), restrictive fire lines (RFLs).
 - (5) Rules of engagement are clear.
- 5) The commander reviews his current CCIR to determine: [FM 101-5, pp. 4-47/48]
 - a) Validity of CCIR.
 - b) New CCIR required to provide the DS FA battalion commander with the information needed to make decisions about the plan.
- 6) The DS FA battalion commander and staff simultaneously monitor, plan, and direct all aspects of DS FA battalion operations (e.g., execution of fire support for the counter-reconnaissance battle, preparations for the current mission, changes to the current plan, and planning for the next mission when information is available).
- 7) The DS FA battalion commander and staff provide direction, guidance, and monitoring of DS FA battalion preparations to be ready no later than the designated time, make changes in a timely manner, and, if appropriate, plan for a future mission.

- c. The DS FA battalion commander performs a suitability-feasibility-acceptability analysis of the new plan. The commander performs the analysis by himself or with staff assistance. [FM 101-5, p. 4-51]

1) Suitability factors:

- a) New concept accomplishes the DS FA battalion mission.
- b) New concept meets the brigade and division commander's intents.
- c) The plan accomplishes his intent for the DS FA battalion's endstate relative to the intended endstate for the enemy.

2) Feasibility factors:

- a) Time to execute the plan(s) as designed.
 - (1) Duration of events.
 - (2) Time and distance factors for maneuver and fires.
- b) There is sufficient ground and air space to accomplish the plan(s) as designed.
 - (1) Roads and terrain support the plan.
 - (2) Depth of action.
- c) The DS FA battalion has the means to execute the plan(s) as designed.
 - (1) DS FA battalion combat power versus the enemy (force ratios).
 - (2) Special equipment and personnel to accomplish the mission (e.g., bridging equipment, mine clearing, Army aviation, CAS, etc.).
- d) Impact on on-going preparation activities.
- e) Impact on subordinate units and combat multipliers.
- f) Requirements to alter task organization.

- 3) Acceptability: mission can be accomplished within acceptable levels of risk to mission success and loss of personnel and equipment.

- d. The DS FA battalion commander describes his revised concept to his staff. [FM 101-5, p. 4-49]
 - 1) The DS FA battalion commander explicitly expresses COA concepts:
 - a) Intent and desired endstate.
 - b) Concept of operations.
 - (1) Major components of maneuver.
 - (2) Integration of combat multipliers.
 - (3) Critical points and center of gravity.
 - c) Enemy COA(s) to be considered.
 - d) CCIR.
 - e) Limitations.
 - f) Risks.
 - 2) The DS FA battalion commander provides the concept and guidance to the staff for detailed COA development and mission analysis.
 - 3) If time is available, the DS FA battalion staff conducts mission analysis and:
 - a) Develops details on COA provided by the commander.
 - b) Develops branches and sequels to the selected COA which adhere to the commander's guidance.
- e. The DS FA battalion staff prepares and publishes FRAGOs. [FM 101-5, App H]
 - 1) The DS FA battalion S3 manages and supervises internal and external coordination by the staff to integrate plan refinements.
 - 2) The staff takes prompt action to accomplish the guidance given by the commander.
 - a) Publishes refinements to orders, planning, and execution products such as DST, synchronization matrix, and FSEM.
 - b) Initiates requests to higher and adjacent units for additional support.

- 3) The staff at the DS FA battalion TOC refines plans, facilitates planning for future operations, identifies and corrects problems identified during subordinate unit preparations, and coordinates additional support from DIVARTY.
- 4) The DS FA battalion staff develops FRAGOs reflecting changes to the initial plan for the DS FA battalion commander's approval: [FM 101-5, App H]
 - a) Graphics and control measures for the operation.
 - b) DST and synchronization matrix.
 - c) Fire support plan, FSEM, FSCM.
 - d) Communications plan.
 - e) CSS plan.
- f. The DS FA battalion S3 issues complete FRAGOs which contain: [FM 101-5, App H]
 - 1) Allocation of all FA assets.
 - 2) Projected changes to the allocation of FA assets based on tactical contingencies in the OPOrd (on-order missions).
 - 3) The DS FA battalion commander's concept of the operation.
 - 4) Requirements for positioning and movement of firing units to support the fire support plan (FA support matrix).
 - 5) The controlled supply rate for ammunition, if any.
 - 6) Arrangements for command and control if they differ from unit SOPs.
 - 7) Specific instructions for attached target acquisition assets, survey, and met.
 - 8) Specific instructions for combat service support, if different from normal unit SOPs.
 - 9) Restrictions on ammunition expenditures, types of fires, and limiting risk to friendly troops.
 - 10) Current and on-order fire support coordinating measures.

- 11) The target list developed by the brigade.
 - 12) Schedules for preplanned fires.
 - 13) Special instructions on rules of engagement, fire support communications, and logistic support.
 - 14) Locations of CPs, ammunition supply points (ASPs), and ammunition transfer points (ATPs).
 - 15) NBC coordinating instructions.
- g. The DS FA battalion commander approves FRAGOs and directs members of his staff to issue FRAGOs based on his approval or in compliance with his guidance. [FM 101-5, p. 4-49]
- h. The DS FA battalion commander takes actions to ensure that subordinate leaders have a clear understanding of his intent and concept. [FM 101-5, pp. 4-59/60]
- 1) The DS FA battalion commander directs the DS FA battalion leadership to conduct leaders' reconnaissances.
 - 2) The DS FA battalion commander receives a confirmation briefing from subordinate leaders.
 - 3) The DS FA battalion commander briefs and disseminates updated orders, DST, synchronization matrix, and other mission documents.
- i. The DS FA battalion staff coordinates internally and with higher, adjacent, and supporting elements to coordinate and integrate the FRAGO. [FM 101-5, App B]
5. **The direct support field artillery battalion commander directs and leads subordinate forces.** [TRADOC Pam 11-9, Chap 7 and App D]
- a. The DS FA battalion commander exercises leadership and maintains unit cohesion and discipline. [Battle Command, Leadership and Decision Making, BCBL, p. 11-15, FM 22-100, Chap 4, 5, and 6]
- 1) The DS FA battalion commander checks and ensures that orders are executed; reinforces discipline by demanding compliance to standards and his guidance.
 - 2) The DS FA battalion commander observes subordinates:
 - a) For indicators of shortfalls in performance or manner of performance, and takes corrective action as necessary.

- b) For noteworthy performance that he can praise and recognize in other ways.
- 3) The DS FA battalion commander displays a calm presence to subordinates while clearly delineating guidance and providing precise, simple orders, and instructions.
- 4) The DS FA battalion commander maintains a moral presence through ethical decision making and personal example.
- 5) The DS FA battalion commander monitors subordinates and himself for degradation of mental and physical capability. [Battle Command, Leadership and Decision Making, BCBL, pp. 27, 28]
 - a) DS FA battalion commander monitors his own physical and mental state and gets rest.
 - b) DS FA battalion XO monitors the DS FA battalion commander's and staff members' physical and mental state and recommends rest periods.
 - c) DS FA battalion commander ensures that subordinate commanders and staff are rested and prepared for battle.
- 6) The DS FA battalion commander continuously assesses risks to mission accomplishment and safety hazards during all phases of the operation.
- b. The DS FA battalion commander and staff coordinate and integrate tactical operations through backbriefs. [FM 101-5, pp. 4-59, 4-60]
 - 1) The DS FA battalion commander conducts backbriefs with the DS FA battalion staff and subordinate commanders.
 - a) During and after the DS FA battalion commander's inspections and visits.
 - b) As directed by the DS FA battalion commander.
 - 2) During backbriefs, the DS FA battalion commander verifies that subordinates understand concept of operations.
 - 3) During backbriefs the DS FA battalion commander and subordinate commanders are responsible for:
 - a) Describing in detail how their schemes of maneuver and fires will be conducted.

- b) Describing how their concept of the operation supports the DS FA battalion commander's intent and contributes to the DS FA battalion mission.
 - c) Describing: the level of preparation achieved; preparation activities still not completed; and actions to be taken in order to adhere to the mission timelines.
 - 4) DS FA battalion staff disseminates information and changes which occur as a result of plan refinement.
- c. The DS FA battalion commander and subordinates plan and prepare for rehearsals. [FM 101-5, App M; FM 71-3, pp. 3-23 - 3-29; FM 6-20-1, pp. 3-12 - 3-14]
 - 1) Rehearsal planning.
 - a) Rehearsals are planned for the DS FA battalion based on: [FM 6-20-1, p. 3-12]
 - (1) Time available.
 - (2) Type and level of rehearsal conducted by the brigade. (Participants in brigade rehearsal by type are addressed in brigade BF 19).
 - (3) Training status of unit.
 - (4) Complexity of the operation.
 - (5) Unit familiarity with rehearsal techniques and SOPs.
 - b) A technical rehearsal should be planned by the S3 in addition to any brigade rehearsal.
 - c) The DS FA battalion commander and DS FA battalion S3 prioritize tasks to be rehearsed based on: [FM 101-5, pp. M-10/11]
 - (1) Key (critical) events and activities to be performed in battle.
 - (2) Complexity.
 - (3) The number and times of rehearsals designated by the commander, ensuring that:

- (a) Subordinates have sufficient time to conduct their own internal rehearsals.
 - (b) Subordinates are not required to be in two places at once.
- 2) DS FA battalion and reinforcing unit prepare for rehearsal. [FM 6-20-1, p. 3-12]
 - a) DS FA battalion, firing battery, and platoon FDCs and FSOs to the company level develop at least a tentative plan prior to their participation in a DS FA battalion rehearsal in order to allow effective feedback on the DS FA battalion plan.
 - b) Subordinate FDCs and FSEs conduct their own technical rehearsals and prepare vehicles, equipment, and soldiers prior to DS FA battalion rehearsals.
 - c) The DS FA battalion O&I elements pay particular attention to displacements. The DS FA battalion FDC issues fire orders and passes messages to observers.
 - d) If there is a mutual support unit, the two FDCs exercise transfer of control.
- d. The DS FA battalion conducts rehearsals.
 - 1) The DS FA battalion conducts multiple rehearsals if time is available, to include contingency plans. [FM 101-5, p. M-15]
 - a) Combined arms maneuver rehearsal.
 - b) CSS/logistics rehearsal.
 - c) Fire support rehearsals.
 - (1) Brigade FS rehearsal.
 - (2) DS FA battalion technical rehearsal.
 - 2) The DS FA battalion conducts realistic and thorough rehearsals; replicating the enemy accurately and: [FM 6-20-1, pp. 3-12 - 3-14]
 - a) A slow walk-through of the mission is performed, with staff and subordinate leaders explaining their actions at every step to ensure understanding; then, with minimal guidance and at combat speed.

- b) Integration and coordination of the BOS are accomplished by rehearsing each element's movement and positioning to ensure that all elements can be in place at designated times and that elements' activities do not interfere with other units' activities.
 - c) Rehearsals are conducted from the point of threat identification up to the point where the DS FA battalion is able to complete the mission and achieve the destruction of the enemy.
 - d) All DS FA battalion systems (vehicles, troops, combat multipliers) participate if time is available; representative portions of DS FA battalion systems participate if time or space is not available.
 - e) During the rehearsal, participants execute exactly as they would in combat.
- 3) The DS FA battalion commander controls and participates in the DS FA battalion rehearsal. [FM 6-20-1, pp. 3-12 - 3-14]
- a) Ensures that rehearsal meets his goals.
 - b) Briefs participants (or gives guidance to the S3 to brief) prior to the rehearsal.
 - (1) Introduces each participant with a brief description of his duties and roles for the mission.
 - (2) Provides an overview:
 - (a) Missions and tasks to be rehearsed.
 - (b) Sequence of activities rehearsed.
 - (c) Rehearsal timelines (e.g., time to rehearse each event/phase of the mission).
 - (d) Description of rehearsal site.
 - (3) The DS FA battalion commander verifies that subordinate commanders understand their mission. [FM 101-5, p. M-15]
 - c) Establishes the standards, outcomes, and goals to be achieved.
 - (1) Battery commanders, staff, FDCs and FSOs at all levels, and leaders fully understand their responsibilities within the parameters of the DS FA battalion commander's intent.

- (2) Vulnerabilities in the plan are identified, and the means to mitigate them are determined.
 - (3) Checks are made to determine whether key aspects of the plan are feasible (e.g., observers confirm that they can see their targets; FDCs confirm that they have ballistic solutions to their targets).
- d) Exercises the decision-making process he expects to be faced with during the mission:
 - (1) Identifies times or events during the mission which will require him to make decisions.
 - (2) Observes how his decisions are implemented by DS FA battalion units and the staff.
 - (3) Identifies the key decision points which are most likely to produce the outcomes which supports his intent and desired endstate.
 - (4) Utilizes his decision-support aids (e.g., DST, synchronization matrix, FSEM).
- e) Tracks the effect of DS FA battalion actions to achieve the desired endstate (with DS FA battalion S3 assistance).
- 4) The DS FA battalion S3 participates in DS FA battalion rehearsals. [FM 6-20-1, p. 3-12]
 - a) Describes overall operation.
 - b) Ensures that DS FA battalion fires are integrated in terms of timing to support brigade movement and maneuver.
 - c) Describes the positioning and movement of the DS FA battalion commander during the mission.
 - d) Describes the positioning and movement of DS FA battalion CPs during the mission.
 - e) Assists the DS FA battalion commander in tracking the effect of DS FA battalion actions to achieve the desired endstate.
- 5) The DS FA battalion S2 participates in DS FA battalion rehearsals. [FM 6-20-1, p. 3-12]

- a) Portrays enemy actions and responses.
 - (1) Replicates all plausible and possible events and activities.
 - (2) Ensures that enemy actions are properly depicted to the DS FA battalion commander, subordinate commanders and staff.
 - (3) Portrays actions of HPT and other activities at NAIs and TAIs.
 - (4) Briefs threats to batteries by phase. [FN-NTC]
- b) Provides updated enemy and terrain information.
- 6) DS FA battalion FDO participates in the rehearsal. [FM 6-20-1, p. 3-12]
 - a) Supervises tactical and technical fire direction.
 - b) Ensures that all FDCs compute fire commands and acknowledge fire support coordinating measures.
 - c) Develops and supervises input of appropriate parameters into fire direction computers.
 - d) Confirms that FDCs can compute ballistic solutions to targets.
- 7) The DS FA battalion S4 (representing CSS staff) participates in rehearsals. [FM 6-20-1, p. 3-12]
 - a) Describes CSS support of the DS FA battalion.
 - b) Portrays positioning and movement of CSS assets.
- 8) FSO, FISTs, and COLTs. [FM 6-20-1, p. 3-12]
 - a) Fire assigned targets.
 - b) Ensure that assigned missions, especially high-priority ones, like FPFs, are loaded into the buffers of forward entry devices (FED).
 - c) Point out and describe control measures (e.g., trigger lines and execution criteria), restrictions, and communications (primary and alternate) between observers and fire support elements which are practiced.

- d) Ensure that company/team fire support plans comply with the commander's guidance.
- e) Describe observer and back-up observer positioning, and responsibilities.
- f) Ensure that indirect fires "triggers":
 - (1) Are understood and demonstrated by observers.
 - (2) Can be executed by the fire support system (e.g., FA, mortars, CAS) based on ranges and timing.
 - (3) Are integrated with ground maneuver.
- 9) The DS FA battalion CMLO participates in DS FA battalion rehearsals. [FM 6-20-1, p. 3-12]
 - a) Describes NBC decontamination support of the DS FA battalion (e.g., sites, equipment, procedures if other than SOP).
 - b) Describes NBC reconnaissance support of the DS FA battalion.
 - c) Portrays potential enemy use of chemicals against the DS FA battalion.
 - d) Describes employment of smoke and other obscurants.
- 10) Battery commanders participate in DS FA battalion rehearsals. [FM 6-20-1, p. 3-12]
 - a) Describe their missions.
 - b) Demonstrate how they will accomplish their assigned mission.
 - (1) Movement.
 - (2) Positions (primary, alternate, subsequent).
 - (3) Timing of moves, positioning, and execution of fires.
 - (a) Must ensure that movement is integrated with timeline of attack of critical targets.
 - (b) Confirm that required quantity and type of ammunition is available in the position required (i.e., FASCAM, smoke).

- 11) Time dependent, the entire operation is thoroughly rehearsed using one of the following techniques: [FM 71-3, pp. 3-23 - 3-29; FM 6-20-1, pp. 3-12 - 3-14]
 - a) Level I: small-scale rehearsals that do not involve mounted or dismounted maneuver. Techniques include:
 - (1) Map: Limited number of participants due to map size, used when time and space constraints are limited.
 - (2) Sand table/terrain model: Key leaders only, used to compensate for lack of sufficient time.
 - (3) Rock/stick drill: Same characteristics as sand-table/terrain models, except that participants replicate their actions or their unit's actions.
 - (4) Radio/telephone: Participants as directed by the DS FA battalion commander, used when time and enemy situations do not allow gathering of personnel; used to test radios and to determine backup systems in the event of communications equipment failure. The technical fire support rehearsal will be conducted in this manner to test all digital devices.
 - b) Level II: Focused rehearsals using selected personnel, usually key leaders, mounted in wheeled or tracked vehicles over similar terrain; technique used is tactical exercise without troops (TEWT), where key leaders participate, conducted on actual mission or similar terrain.
 - c) Level III: Full-scale dress rehearsal involving use of real time, mounted and dismounted maneuver over actual mission or similar terrain.
- 12) The DS FA battalion commander, XO, S3, and other key staff officers conduct rehearsal after action reviews (AARs) to ensure that critical tasks are rehearsed to acceptable levels of competence. [FM 101-5, p. M-15, FM 6-20-1, p. 3-12]
- e. The DS FA battalion commander ensures that each BOS is integrated with other BOS during visits, backbriefs, and rehearsals. [FM 101-5, pp. H-36 - H-42]
 - 1) The DS FA battalion commander determines the state of DS FA battalion preparedness through visits and inspections. [Battle Command, Leadership and Decision Making, BCBL, p. 10-15]

- a) The DS FA battalion commander personally visits and inspects units.
 - (1) Manages his time and prioritizes his visits so that he visits at least those units most critical to the execution of his intent and concentrates on those units and officers that demonstrate leadership weaknesses; assesses unit capabilities; checks/listens to be sure tasks are understood.
 - (2) Questions subordinate leaders down to section level and compares their concepts of the operation with his to ensure that the DS FA battalion plan is understood at all levels.
 - (3) Inspects and spot-checks known weaknesses to ensure that they are corrected.
 - (4) Makes a subjective assessment of cohesion, morale, and esprit.
 - (5) When actions taken are not in accordance with decisions, SOPs, Army standards, and the OPORD, refines plans and preparation efforts to counter weaknesses.
 - (6) Expedites actions, fixes problems, ensures compliance with guidance, and sets/refines standards.
 - (7) Informs DS FA battalion XO and his representatives inspecting preparations of any changes or refinements to the plan which he has directed.
- b) The DS FA battalion commander extends his command presence by directing members of his staff (DS FA battalion XO, CSM, or one or more DS FA battalion staff members) to perform inspections and visits.
- c) Inspections and visits are scheduled; units may be informed of times.
 - (1) Inspections and visits do not significantly interfere with, delay, or artificially sequence subordinate units' combat preparations.
 - (2) The commander determines and outlines those items and activities he will inspect based on:
 - (a) Experience.

- (b) In-depth knowledge of the DS FA battalion and its equipment.
 - (c) Assessment of the current status of the units.
 - (d) Items which serve as indicators of maintenance, readiness, or morale trends within the unit (appearance, signs of fatigue).
- 2) The DS FA battalion commander directs adjustments to the DS FA battalion preparations.
- 3) The DS FA battalion commander integrates intelligence requirements with the other BOS.
 - a) The commander and S2 review the intelligence synchronization matrix to ensure that the intelligence system provides answers to intelligence requirements in time to influence the decisions they support.
 - b) The DS FA battalion S2 uses the products of the targeting process to develop specific information requirements (SIR)/specific orders and requests (SOR) that integrate the activities of the collectors with the command's decision points.
 - c) The DS FA battalion commander ensures that decide, detect, deliver and assess methodology is integrated into the brigade commander's tactical decision-making process to ensure that targeting is integrated with all other aspects of the commander's plan.
- 4) The DS FA battalion commander integrates fire support within the fire support system itself and with the other BOS.
 - a) Subordinate unit fire support plans are verified and integrated with the brigade fire support plan.
 - b) The FA support plan is integrated with the brigade FS plan to ensure that the right attack means is delivered on the right target at the right time:
 - (1) Shifts in priorities of fires and timing for preplanned and targets of opportunity engagements in each phase of the operation are integrated with the movement plan.

- (2) Positioning of primary and back-up observers to allow observation on all priority targets and engagement areas (EAs) to provide the trigger, adjustment if necessary, and target effects for BDA.
 - (3) Priority of fires and priority targets for each phase of the mission, including method for prioritizing calls for fire to provide situationally alert fire support coordination.
 - (4) Finalizing artillery target groups and series to integrate massing of fires on the critical target with the brigade commander's plan.
 - (5) Employment concept for special munitions (i.e., FASCAM, smoke, dual purpose improved conventional munitions [DPICM], Copperhead) is completed and can be executed on the right target at the right time without interfering with the ability to provide adequate overall support for the plan.
 - (6) CAS and Army aviation refinements are reviewed for synchronization of SEAD and necessary FSCM to facilitate fires.
 - (7) Control measures and restrictions to facilitate rapid engagement of targets while simultaneously safeguarding friendly forces.
- 5) The DS FA battalion commander integrates CSS with the other BOS.
- a) Verifies that CSS assets are positioned and prepared to provide planned supply, medical, and maintenance support to the DS FA battalion during the mission without interfering with the DS FA battalion delivery of fires.
 - b) Verifies that push packages of emergency resupplies are configured and ready to support continuous delivery of fires.
 - c) Reviews designated MSR and ASRs to ensure that CSS assets can provide timely response without interfering with movement or maneuver of fire support units or brigade elements.
 - d) Verifies that medical assets and operations are prepared to support the DS FA battalion and that the evacuation plan is integrated with the movement of units.

- e) Ensures that vehicles and equipment are being recovered, repaired, and returned to user or delivered to higher maintenance echelons during the preparation phase.
 - f) Verifies that maintenance assets are task organized and are prepared to provide support; unit maintenance collection points (UMCPs) are prepared to displace and provide planned support.
- 6) The DS FA battalion commander integrates command and control with the other BOS.
- a) The DS FA battalion commander reviews the DST, synchronization matrix, and FSEM to ensure that:
 - (1) Plan modifications are integrated.
 - (2) Mission details to achieve the brigade and DS FA battalion commander's intent are adequately reflected.
 - (3) Fire support is integrated and integrated with maneuver..
 - b) Planned command and control measures are reviewed by the DS FA battalion commander, staff, and subordinate leaders to assist in the synchronization of fire and maneuver:
 - (1) Maneuver graphics and control measures (e.g., phase lines, objectives, routes, check and coordination points) to integrate movement.
 - (2) Signals and quick execution code words to facilitate rapid execution of the plan.
 - (3) DST to ensure that critical HPTs and targeting adequately support critical decision points, if required.
 - (4) Synchronization matrix to integrate all aspects of the brigade commander's plan.
 - (5) FSEM and FSCM to integrate the effective but safe delivery of fires.
 - c) CPs and staff are prepared to support the mission.
 - (1) Ready to receive, process, and disseminate information.
 - (2) Move and position to support the DS FA battalion commander during the battle.

- (3) Coordinate and integrate combat multipliers.
 - (4) Exchange information with brigade and adjacent units.
- f. The DS FA battalion concept is revised based on results of rehearsals, visits, and inspections.
 - 1) The DS FA battalion commander ensures that FASP/FRAGO and all critical associated documents are updated and reflect his most current guidance (see task 3 for the refinement of plans and orders).
 - a) The DS FA battalion commander modifies guidance and orders based on continued preparation activities, rehearsals, and other METT-T information.
 - b) The DS FA battalion staff refines original FASP and all associated documents based on continued preparation activities, rehearsals, and other METT-T information.
 - c) The DS FA battalion staff refines FRAGO and all associated documents based on continued preparation activities, rehearsals, and other METT-T information.
 - 2) The DS FA battalion staff distributes refined/updated FASP, FRAGO, and associated documents to the subordinate units.
 - 3) DS FA battalion subordinate, attached, and reinforcing units conduct final battlefield preparations based on updated FASP, FRAGO, and associated documents.

TASKS ORGANIZED BY OUTCOMES

This component links the tasks with the outcomes the task performance supports. Each outcome is linked with all appropriate tasks. This component is used for two purposes. The first is to ensure that each BF outcome is sufficiently supported by all tasks necessary to achieve the outcome. The second is to verify that the outcomes selected support the BF purpose and that they are complete in that no additional outcomes are required to define the BF. This component can be used by trainers to facilitate assessment of training proficiency and to plan training.

Outcome 1

DS FA Bn command posts (CPs) maintain continuous communications with higher, adjacent, and subordinate headquarters.

Task Elements

1. **The direct support field artillery battalion command posts and staff manage and maintain command, control, and communications.**
 - a. Battalion CPs manage means of communicating information. [FM 101-5, Chap 6 and App B, L; ARTEP 6-115, task 06-3-01-2150, 2160, 2120]
 - 6) All DS FA battalion CPs eavesdrop on lower and adjacent unit command, and operations and intelligence (O&I) nets for information. [FN-NTC]
 - 8) All DS FA battalion CP communicate routine information per DS FA battalion TSOP. [FM 101-5, p. 6-5]
 - 9) DS FA battalion S3 at the DS FA battalion TOC manages communication: [ARTEP 6-115-MTP, Task 06-06-3-01-2120, FM 6-20-1, pp. 6-7 - 6-21]
 - a) Facilitates control and coordination for the DS FA battalion commander through communication with subordinate, adjacent, and supporting elements.
 - b) Passes processed information and keeps the DS FA battalion commander updated on new information through concise, consolidated updates.
 - b. DS FA battalion CPs maintain communications. [ARTEP 6-115-MTP, Task 6-2-02-3000, 5000, 06-2-02-4000, 06-2-01-6000; FM 6-20-40, Chap 2]
 - 1) DS FA battalion CPs position so that the DS FA battalion commander maintains communications with higher, adjacent, reinforcing, and subordinate units to provide continuous fire support to the force during preparation and transition to battle. [FM 6-20-1, p. 3-25]

- a) The DS FA battalion commander exercises command and control during mission preparation.
 - b) DS FA battalion, battery, and platoon CPs displace, as required, prior to line of departure (LD) time or other mission execution time to provide most responsive fire support during the transition from preparation to the initiation of the battle.
 - c) DS FA battalion staff ensures that CPs are not detected by the enemy by using passive defense measures.
- 2) The DS FA battalion TOC positions prior to mission execution to:
- b) Maintain voice and digital communications with higher, adjacent, reinforcing, and subordinate units.
 - d) Supervise and manage the operation and monitoring of communications nets.
 - (1) DS FA battalion command (voice).
 - (2) Brigade command (voice).
 - (3) DS FA battalion fire support nets (voice and digital).
 - (4) DS FA battalion fire direction nets (voice and digital).
 - (5) DS FA battalion operations/fire (digital).
 - (6) DS FA battalion administrative/logistics (A/L) (voice).
 - (7) DIVARTY command (voice).
 - (8) DIVARTY operations/fire (voice and digital).
- 3) The DS FA battalion administration and logistics operation center (ALOC) positions prior to mission execution to conduct rapid movement of emergency CL III and V forward to support the DS FA battalion. [FM 6-20-1, p. 7-8]
- a) Monitors the DS FA battalion A/L net to determine subordinate unit CSS requirements.
 - c) The HHB commander commands the combat trains. The DS FA battalion S4, assisted by the DS FA battalion PSNCO, supervises ALOC operations in the combat trains. [FM 6-20-1, p. 7-5; FM 6-20-40, p. F 4]

- (1) Manages (net control station [NCS]) for the DS FA battalion A/L net; maintains communications with subordinate and supporting units and headquarters.
 - (2) Monitors the tactical situation and maintains communications to ensure that it is prepared to assume duties of the DS FA battalion TOC, if needed.
 - (3) Operates on and monitors communications nets.
 - (a) DS FA battalion command.
 - (b) DS FA battalion A/L.
 - (c) Brigade A/L.
 - d) The DS FA battalion S1 supervises the DS FA battalion support operations center (BSOC) operations assisted by the DS FA battalion S4 NCOIC. The BSOC:
 - (1) Monitors the DS FA battalion A/L net and communicates with the supporting FSB elements by wire.
 - 4) The DS FA battalion CPs take action to survive: [FM 6-20-1, p. 3-25]
 - a) The DS FA battalion CPs use cover, concealment, and routes which reduce detection by the enemy.
 - b) Local security is structured to provide early warning, perimeter protection, and a reaction force for immediate response.
 - c) OPSEC is continually monitored.
 - d) Risks to mission accomplishment and safety hazards are continuously assessed.
 - 5) Communications are maintained without interruption with all subordinate elements and higher headquarters to allow the DS FA battalion commander and staff to exercise command and control. [FM 6-20-1, p. 3-26]
2. **Direct support field artillery battalion command posts acquire, evaluate, and communicate information and maintain status.** [TRADOC Pam 11-9, Section IV; "Battle Command," BCBL-Ft. Leavenworth publication, pp. 43, 65; ARTEP 6-115-20-MTP, Task 06-3-02-1100; FM 34-130, Chap 2; FM 6-20-40, Chap 2; FM 101-5, Chap 3, 5, App J]

- a. The DS FA battalion staff officers acquire information. [TRADOC Pam 11-9, Chap 7 and App D]
 - 11) The DS FA battalion communications section obtains information concerning DS FA battalion communications requirements and capabilities. [ARTEP 6-115-MTP, Task 06-8-01-4000, 06-7-01-4800, 06-1-01-4100]
 - b) Status of communications links from DS FA battalion CPs to brigade main and tactical command post (TAC CP), battalion TF FSO/FIST/COLT, DIVARTY, reinforcing units, and other major subordinate command (MSC) CPs.
 - c) Updates from subordinate units on communications status.
 - (1) Status of communications links from DS FA battalion CPs to Btry/Plt FDCs.
 - (2) Operational status of equipment (secure and non-secure, digital and voice).
 - (3) Signal operating instructions (SOIs).
 - (4) Availability of subordinate unit communications personnel and equipment.
 - e) Status reports from retransmission stations.
 - (1) Positioning.
 - (2) Equipment serviceability and capability.
 - (3) Communication ranges and dead spaces.
 - f) Information from the DS FA battalion XO and S3 about changes to proposed DS FA battalion CP locations and projected timelines.
- 5. **The direct support field artillery battalion commander directs and leads subordinate forces.** [TRADOC Pam 11-9, Chap 7 and App D]
 - e. The DS FA battalion commander ensures that each BOS is integrated with other BOS during visits, backbriefs, and rehearsals. [FM 101-5, pp. H-36 - H-42]
 - 6) The DS FA battalion commander integrates command and control with the other BOS.
 - c) CPs and staff are prepared to support the mission.

- (1) Ready to receive, process, and disseminate information.
- (2) Move and position to support the DS FA battalion commander during the battle.
- (3) Coordinate and integrate combat multipliers.
- (4) Exchange information with brigade and adjacent units.

Outcome 2

The Bn Cdr, staff, and other key individuals within the DS FA Bn receive, evaluate, and process timely and accurate information on the adherence to timelines and quality of battle preparation.

Task Elements

1. **The direct support field artillery battalion command posts and staff manage and maintain command, control, and communications.**
 - a. Battalion CPs manage means of communicating information. [FM 101-5, Chap 6 and App B, L; ARTEP 6-115-MTP, Task 06-3-01-2150, 2160, 2120]
 - 1) The DS FA battalion commander appoints an “information manager” from the staff (usually the battalion S3) to: [FM 101-5, Chap 6 and App B]
 - a) Facilitate the flow of information and communication of information from DS FA battalion staff members and subordinate units.
 - b) Outline and monitor the performance and responsibilities of the DS FA battalion staff in processing mission information, preparation status, and the DS FA battalion commander’s information requirements.
 - c) Establish and enforce timelines.
 - 2) The DS FA battalion XO, as primary logistician:

NOTE: The DS FA battalion XO is the second in command of the DS FA battalion. He is the senior staff officer of the unit and serves as the primary logistician. He must position himself, based on the location of the DS FA battalion commander, where he can best perform either function (e.g., when the DS FA battalion commander is with the brigade commander and staff, the XO may devote more of his time in his role as second in command). [FM 6-20-1, p. 3-4]

- a) Supervises the activities of the DS FA battalion CSS staff.
- b) Ensures that DS FA battalion units are logistically sustained.
- 3) The DS FA battalion assistant S3 manages the operations of the DS FA battalion tactical operations center (TOC) and the operations section when the DS FA battalion S3 is not available. [FM 6-20-1, p. 3-2]
 - a) Coordinates and integrates staff activities.
 - c) Enforces timelines.
- 4) DS FA battalion S3 directs staff meetings: [AN]
 - b) Appraises completeness of information.
 - c) Identifies information gaps and directs actions to fill them.
- 5) LNOs provide information to the DS FA battalion commander and staff and to the headquarters they represent. Information includes: [FM 101-5, App L]
 - a) Responses to specific questions asked of LNO.
 - b) Unit locations, activities, capabilities, status, and intentions.
 - c) Identification of coordination problems.
 - (1) Inability to reach/meet with specific people or staff positions.
 - (2) Receipt of information which invalidates or should change estimates and plans.
- 6) All DS FA battalion CPs eavesdrop on lower and adjacent unit command, and operations and intelligence (O&I) nets for information. [FN-NTC]
- 7) All DS FA battalion CPs ensure that information on the situation is communicated between staff officers during shift changes. [FM 71-3, p. 3-25]
 - a) Enemy activities.
 - b) Status of subordinate units.
 - c) Ongoing staff actions which must be monitored, tracked, and completed.

- d) Timelines and suspenses which must be met.
 - e) Planning for future missions.
2. **Direct support field artillery battalion command posts acquire, evaluate, and communicate information and maintain status.** [TRADOC Pam 11-9, Section IV; "Battle Command," BCBL-Ft. Leavenworth publication, pp. 43, 65; ARTEP 6-115-20-MTP, Task 06-3-02-1100; FM 34-130, Chap 2; FM 6-20-40, Chap 2; FM 101-5, Chap 3, 5, App J]
- a. The DS FA battalion staff officers acquire information. [TRADOC Pam 11-9, Chap 7 and App D]
 - 1) The DS FA battalion commander obtains and communicates information relative to DS FA battalion preparations. [AN]
 - a) The DS FA battalion commander refines/updates his CCIR based on current situation. [FM 101-5, pp. 4-47, 48; 6-8, 9]
 - (1) Refines his need for information based on his visualization of current and future desired endstates.
 - (2) Anticipates flow of the of the battle (e.g., changes in battle phasing) to assess validity of CCIR.
 - (3) Considers changes to METT-T which may alter information requirements.
 - b) The DS FA battalion commander receives new guidance or missions from the brigade commander.
 - c) The DS FA battalion commander obtains and communicates information concerning DS FA battalion preparations from the DS FA battalion staff, from subordinate and supporting commanders, and during personal visits and inspections.
 - 2) The DS FA battalion S3 manages the flow of information in the DS FA battalion TOC and establishes a system to keep the DS FA battalion commander informed. [FM 101-5, pp. 6-2, 6-11, 6-34; ARTEP 6-115-MTP, 6-115/06-3-01-2110]
 - 3) All DS FA battalion staff officers, LNOs, and subordinate leaders obtain information; they commonly: [FM 101-5, pp. 3-84, C-4, Chap 6, App A]

- a) Focus information collection according to CCIR and staff information requirements relevant to their areas of responsibility and immediately communicate any response to CCIR to the DS FA battalion commander, XO, and S3. Information required by other staff officers is passed directly to them. [FM 101-5, pp. 6-8, 6-11, 6-16, and C-4]
- b) Obtain information relevant to fulfilling their areas of responsibility for the DS FA battalion's preparations for battle in order to: [FM 101-5, pp. 6-33, 6-34]
 - (1) Monitor and modify preparation activities as necessary.
 - (2) Keep the commander informed of factors impacting on his ability to perform his role as DS FA battalion commander or FSCOORD for the brigade.
- c) Provide updates to the DS FA battalion commander on their functional areas. [FM 101-5, pp. 6-33, C-2]
- d) Continually coordinate with each other personally and with external headquarters to obtain information which includes: [FM 101-5, p. 3-84, App A]
 - (1) Specific information requirements, e.g., information to assist the DS FA battalion S2 with refinement of the DS FA battalion intelligence preparation of the battlefield (IPB); information to assist the DS FA battalion S3 regarding units' requirements for use of terrain in the brigade area.
 - (2) Updates/modifications of CCIR as directed by the DS FA battalion commander during:
 - (a) Rehearsals.
 - (b) Backbriefs.
 - (c) Commander visits.
- 4) The DS FA battalion CSM obtains information during visits and inspections and advises the DS FA battalion commander on: (discussed in tasks 2 and 4 of this task analysis) [AN]

- a) Morale, discipline, and adherence to standards by DS FA battalion soldiers.
 - b) Assessment of units' preparations.
 - c) Assessment of CSS system.
 - d) Assessment of the welfare of DS FA battalion soldiers.
 - e) Other duties or information requested by the DS FA battalion commander.
- 5) The DS FA battalion S2 section obtains intelligence information: [FM 101-5, pp. C-7, C-8; FM 34-130, Chap 2]
- a) From brigade and DIVARTY S2s and DS FA battalion staff, obtains: [FM 6-20-1, pp. 3-10 - 3-12]
 - (1) Changes from the DS FA battalion commander to guidance and mission concept and his requirements for intelligence information determined during rehearsals and backbriefs.
 - (2) Intelligence summaries (INTSUM) and spot reports from brigade, DIVARTY, and higher headquarters.
 - (3) Information from brigade, DIVARTY, and adjacent units.
 - (4) OPSEC reports from the DS FA battalion S3/operations section and subordinate units which contribute to analysis of DS FA battalion security posture.
 - (5) Information on current situation learned by eavesdropping on brigade, DIVARTY, and adjacent unit command and O&I nets.
 - b) From subordinate units including: [ARTEP 6-115-MTP, 6-115/06-3-01-2512]
 - (1) FISTs, FSOs, COLTs.
 - (2) Survey parties.
 - (3) Battery defense observation posts (OPs) and listening posts (LPs).

- (4) Battery advance parties.
 - (5) Radars attached to or organic to or otherwise supporting the DS FA battalion.
- c) From DS FA battalion special staff officers. [FM 101-5, App A]
- d) From LNOs from/to higher, adjacent, and supporting units. [FM 101-5, App L]
- e) From other sources such as:
 - (1) Aerial photographs.
 - (2) Prisoners, deserters, and civilian population.
 - (3) Electronic warfare (EW), radars, and sensors.
 - (4) Unmanned aerial vehicles (UAVs).
- 6) DS FA battalion S3 section obtains operations information (i.e., changes to METT-T and status of battlefield operating systems [BOS]). [FM 101-5, pp. C-8, C-9]
 - a) From DS FA battalion, brigade, and DIVARTY commanders and S3s which may affect operations. [ARTEP 6-115-MTP, Task 06-3-01-2110,2120]
 - (1) Direction from the DS FA battalion commander.
 - (a) Changes to mission concept or details of the plan.
 - (b) Requirements for information determined during rehearsals and backbriefs.
 - (c) Other guidance and directives.
 - (2) FRAGOs/WARNOs from brigade commander, S3, or brigade FSO.
 - (3) Situation updates from brigade FSO or other brigade staff such as:
 - (a) SITREPs.
 - (b) Responses on queries and requests submitted by the DS FA battalion.

- (c) Changes to brigade situation which necessitate changes to DS FA battalion OPSEC posture.
 - (4) Division and corps units requiring terrain in the brigade AO.
- b) From subordinates units including: [ARTEP 6-115-MTP, Task 06-3-01-2110, 2150]
 - (1) Changes to subordinate units' plans.
 - (2) Status of preparations.
 - (3) Reports.
 - (a) Enemy contact.
 - (b) Current and projected strength and combat power.
 - (c) OPSEC reports.
 - (d) Results of local security operations.
 - (4) Requests for resources based on mission analyses and determination of needs to accomplish assigned tasks.
 - (5) Recommendations for changes to the DS FA battalion plan based on their current and projected status.
- c) From other staff officers and LNOs. [ARTEP 6-115-MTP, Task 06-3-01-2120; FM 101-5, App A]
 - (1) Information from the DS FA battalion S2 and intelligence section which confirms or refutes operations estimate of the situation.
 - (2) Updates from DS FA battalion S1/S4.
 - (a) Personnel and unit status.
 - (b) Vehicle and equipment status.
 - (c) Status of all classes of supply.
 - (3) Updates from brigade FSE.
 - (4) Updates from DS FA Bn SO on the status of DS FA battalion communications links and systems.

- (5) Updates from CMLO on the status and planned employment of chemical units.
- d) From DS FA battalion staff, battalion TFs, and other units about terrain requirements in order for the brigade S3 to deconflict terrain requirements for all units operating in the brigade area. [FM 6-40, Chap 3]
- 7) The DS FA battalion FDC section obtains information to include: [ARTEP 6-115-MTP, Task 06-3-02-2320; FM 6-20-1, p. 3-3; FM 6-40]
 - a) Changes from the DS FA battalion commander, S3, and brigade FSO to guidance and mission concept and requirements for information to assist in the development of the commander's criteria for IFSAS and AFATDS.
 - b) Intelligence information from the DS FA battalion S2, brigade FSE, and DIVARTY S2 via IFSAS and AFATDS artillery target intelligence (ATI) files.
 - c) Changes from the brigade FSO, DS FA battalion S3, and battalion FSOs to preplanned and scheduled fires.
 - d) IPB integration with S2 and assistant S3.
 - (1) Site selection.
 - (2) Intervening crest/site to crest.
 - (3) Ranges to critical targets by phase.
 - (4) Munitions available.
 - (5) Engagement criteria.
 - e) Changes to firing parameters (requirements for accurate predicted fires).
 - (1) Accurate target location and size.
 - (2) Accurate firing unit location.
 - (3) Weapon and ammunition information.
 - (4) Met information.
 - (5) Computational procedures.

- f) Updated information from battery FDCs.
- 8) The brigade FSCoord, brigade FSO, and FSE section obtain fire support information. [FM 6-20, pp. 2-22, 2-23; FM 6-20-40, Chap 4; ARTEP 71-3-MTP, Task 9002/1b, 3; 9003/1a; 9004/1a]
 - a) Changes from the brigade commander to guidance and mission concept and requirements for information.
 - b) Intelligence information from the DS FA battalion S2, brigade S2, division FSE, and DIVARTY TOC.
 - (1) Enemy capabilities to detect, acquire, or attack the DS FA battalion with indirect or direct fires.
 - (2) Responses to information and intelligence queries submitted by the DS FA battalion previously.
 - (3) Target acquisition assets and plans.
 - c) Field artillery status from DS FA battalion S3.
 - (1) Current and projected locations of units.
 - (2) Current and projected unit weapons status.
 - (3) Current and projected ammunition status.
 - d) Field artillery status from DIVARTY and division FSE.
 - (1) Organization for combat (including GS, GSR FA).
 - (2) Locations and status of GS and GSR batteries and platoons.
 - (3) Status and locations of counter-battery radars.
 - (4) Status and timing of meteorological support.
 - (5) Division or corps-directed FSCM.
 - e) Task organization, personnel and equipment status, and status of preparations from battalion TF FSOs.
 - (1) COLTs.
 - (2) FISTs.
 - (3) Mortars.

- (a) Mortar tubes and vehicles.
 - (b) Personnel.
 - (c) Locations of sections and FDCs.
 - (d) Ammunition status.
- (4) Ammunition types.
- (5) Ammunition quantities.
- f) Bottom-up refinements regarding projected locations, targets, and timelines from:
 - (1) Refinement of battalion TFs fire plans and target lists.
 - (2) Refinement of intelligence information from scout platoons.
 - (3) COLTs and other observers.
 - (4) Refinement of data for FPFs.
 - (5) FSCM.
- g) Availability and locations of EW assets from DS FA battalion S2.
- h) Information necessary to refine plans for coverage of obstacles and adjustments to FASCAM employment from the brigade engineer.
- i) Fire support requirements from the DS FA battalion S4 and FSB commander to support the brigade support area (BSA).
- 9) The DS FA battalion RSO obtains information concerning the DS FA battalion survey operations. [ARTEP 6-115-MTP, Task 06-8-02-2700, FM 6-2, pp. 15-13, 14]
 - a) Changes from the DS FA battalion commander on survey priorities.
 - b) Intelligence data from the DS FA battalion S2.
 - (1) Enemy activity effecting survey operations.
 - (2) Impact of weather and terrain on survey capabilities.
 - (3) Requirements to survey sensor links.

- (4) Impact of NBC hazards on survey operations.
- c) Information from DS FA battalion S3.
 - (1) Status of movement planning that may affect survey operations.
 - (2) Changes to task organization that affect survey priorities.
 - (3) Additional survey requirements from brigade.
- d) Status of survey teams:
 - (1) Equipment.
 - (2) Personnel.
 - (3) Response to timelines.
- 10) The DS FA battalion CMLO obtains information concerning friendly and enemy NBC status. [ARTEP 6-115-MTP, Task 03-3-C201, C202]
 - a) Changes from the DS FA battalion commander to guidance, mission concept, and requirements for information.
 - b) NBC warning and reporting system (NBCWRS) updates from brigade and DIVARTY.
 - c) Status and location updates for NBC equipment and supplies from subordinate units and DS FA battalion S4.
 - d) Status and location of decontamination and reconnaissance assets from brigade CMLO.
 - e) NBC monitoring and surveillance reports from subordinate units.
 - f) Information from the DS FA battalion S2 and intelligence section which confirms or refutes estimate of NBC threat and requirements.
 - g) Changes to brigade and subordinate units' plans in terms of projected locations, decontamination requirements, and timelines.
- 11) The DS FA battalion communications section obtains information concerning DS FA battalion communications requirements and capabilities. [ARTEP 6-115-MTP, Task 06-8-01-4000, 06-7-01-4800; 06-1-01-4100]

- a) Changes from the DS FA battalion commander to guidance, mission concept, and requirements for information.
 - b) Status of communications links from DS FA battalion CPs to brigade main and tactical command post (TAC CP), battalion TF FSO/FIST/COLT, DIVARTY, reinforcing units, and other major subordinate command (MSC) CPs.
 - c) Updates from subordinate units on communications status.
 - (1) Status of communications links from DS FA battalion CPs to Btry/Plt FDCs.
 - (2) Operational status of equipment (secure and non-secure, digital and voice).
 - (3) Signal operating instructions (SOIs).
 - (4) Availability of subordinate unit communications personnel and equipment.
 - d) Information from the DS FA battalion S2 and intelligence section.
 - (1) Which confirms or refutes estimate of communications requirements.
 - (2) Updates on enemy electronic and communication capabilities.
 - e) Status reports from retransmission stations.
 - (1) Positioning.
 - (2) Equipment serviceability and capability.
 - (3) Communication ranges and dead spaces.
 - f) Information from the DS FA battalion XO and S3 about changes to proposed DS FA battalion CP locations and projected timelines.
 - g) Changes to battalion TF and subordinate units' plans in terms of projected locations and timelines.
- 12) The DS FA battalion S1 section obtains information: [ARTEP 6-115-MTP, Task 12-1-C404; FM 101-5, p. C-5; FM 6-20-1, pp. 7-7, 7-21, 7-22]

Tasks Organized by Outcomes for DS FA Bn BF 19

- a) Changes from the DS FA battalion commander to guidance, mission concept, priorities, and requirements for information.
- b) Information from the DS FA battalion S2 and S2 section which confirms or refutes estimates of personnel situation and casualty estimates.
- c) Personnel status from subordinate and supporting units.
 - (1) Personnel status reports (PERSTATREP).
 - (2) Critical military occupational specialty (MOS)/grade shortages.
 - (3) Absent without leave (AWOLs).
 - (4) Casualty feeder reports.
- d) Personnel information from DIVARTY S1/adjutant general (AG).
 - (1) Availability of replacements and replacement operations.
 - (2) Postal services.
 - (3) Morale, welfare, and recreation (MWR) support.
- e) Morale and discipline indicators from brigade, DIVARTY, and DS FA battalion special staff officers.
 - (1) Uniform code of military justice (UCMJ) rates from staff judge advocate (SJA).
 - (2) Straggler and crime rates from the division provost marshal.
 - (3) Sick call and stress casualties from DS FA battalion surgeon.
 - (4) Complaints information from the inspector general (IG).
 - (5) Feedback of leader and soldier concerns from the chaplain.
- f) FSB support capabilities from the FSB support operations center.
- g) Information from the supported brigade military police (MP) platoon leader concerning EPW processing and evacuation requirements.

- 13) The DS FA battalion S4 section obtains information. [ARTEP 6-115-MTP, Task 06-3-01-6430; FM 101-5, p. C-9; FM 6-20-1, pp. 7-10, 7-11]
 - a) Changes from the DS FA battalion commander to guidance, mission concept, priorities, and information requirements.
 - b) Information from the DS FA battalion S2 and S2 section which confirms or refutes estimates of the logistical situation.
 - c) Logistics reports from subordinate and supporting units.
 - (1) Status of supplies.
 - (2) Equipment readiness.
 - (3) Task organization and status of CSS elements:
 - (a) Field trains.
 - (b) Combat trains.
 - (4) Maintenance, transportation, and supply updates from the brigade S4 and FSB support operations center (including plans for weapons system replacement operations [WSRO]).
 - (5) Information from the division ammunition officer (DAO) on the location of ammunition supply points and ammunition transfer points (ASP/ATPs).
- 14) The DS FA battalion surgeon obtains information. [ARTEP 6-115-MTP, Task 08-3-C003; FM 6-20-1, p. 7-23, 7-24]
 - a) Changes from the DS FA battalion commander to guidance, mission concept, priorities, and information requirements.
 - b) Information from the DS FA battalion S2 and S2 section which confirms or refutes estimates of the casualty situation.
 - c) Medical updates and aerial medical evacuation capabilities from the brigade surgeon.
 - d) CL VIII supply updates from the division medical supply officer.
 - e) Additional medical support capability from the main support battalion (MSB).

- f) Supporting unit medical support status.
 - (1) Positioning and readiness of medical assets.
 - (2) Capability to receive, triage, and evacuate casualties.
 - g) Changes to supporting unit plans in terms of projected locations and times.
 - h) Medical evacuation and support concepts from brigade surgeon for FSO/FIST personnel.
- 15) The DS FA battalion ALOC/BSOC obtain information from: [FM 6-20-1, pp. 7-1 - 7-10]
- a) Changes from the DS FA battalion commander to guidance, mission, concept, priorities, and information requirements.
 - b) Information from the DS FA battalion S2 and S2 section which confirms or refutes estimates of the CSS situation.
 - c) Changes to guidance, priorities and requirements from the FSB commander.
 - (1) CSS task organization.
 - (2) Tasks to provide CSS support to division and corps units.
 - d) Information from the MSB regarding backup CSS support.
 - e) Information from the division material management center (DMMC) concerning supply and maintenance management support.
 - f) Information from supported units regarding their requirements.
 - g) Information from all organizations in the BSA (for defense and terrain management).
- 16) The HHB commander obtains information necessary to support the TOC and the ALOC. [FM 6-20-1, pp. 3-1, 3-6, 7-1, 7-10]
- a) Obtains changes to DS FA battalion commander guidance, mission concept, and information requirements from the DS FA battalion S3.

- b) Obtains information from the DS FA battalion S2 and S2 section which confirms or refutes enemy threat to the TOC/ALOC.
 - c) Obtains anticipated movement times and projected locations for the CP and combat trains from the DS FA battalion XO and S3.
 - d) Obtains information from attachments/supporting agencies concerning space, supply, and support requirements.
- b. The DS FA battalion CPs evaluate acquired information and update products. [FM 6-20-1 p. 3-1; FM 101-5, Chap 6; ARTEP 6-115-MTP, Task 06-1-02-2500]
- 1) The DS FA battalion S2 and intelligence section evaluate intelligence information and update IPB products. [ARTEP 6-115-MTP, Task 06-1-02-2500]
 - a) The DS FA battalion S2 and intelligence section track the enemy to support evaluation:
 - (1) Locations (confirmed and suspected).
 - (2) Activity.
 - (a) Indications of possible intent.
 - (b) Enemy reactions to friendly battle techniques.
 - (c) Specific enemy actions triggered by friendly actions or events.
 - (3) Adherence to, or deviation from, postulated enemy (COA).
 - (4) Losses so as to analyze strengths and capabilities.
 - b) The DS FA battalion S2 and intelligence section evaluate intelligence information. [ARTEP 6-115-MTP, Task 06-3-01-2512]
 - (1) Evaluate changes to guidance/direction and information.
 - (2) Compare desired DS FA battalion endstates with current intelligence situation, trends, and IPB.
 - (3) Evaluate information which confirms or refutes IPB information relative to achieving the DS FA battalion commander's intent:

- (a) IR/PIR.
- (b) NAIs and TAIs.
- (4) Determine whether collection and sensor plans continue to meet DS FA battalion commander's intent.
 - (a) Positioning of assets to collect PIR and IR.
 - (b) Positioning of assets to maintain constant observation of NAIs and TAIs.
 - (c) Positioning of assets to detect and track HPTs, to provide observation for attack of HPTs, and to provide target effects for battle damage assessment (BDA) on HPT following attack.
 - (d) Positioning of Firefinder radars. [FN-NTC]
- (5) Evaluate indicators of enemy intentions:
 - (a) NBC weapons usage or activity as a prelude to offensive operations.
 - (b) Presence of enemy reconnaissance forces as a prelude to attack.
 - (c) Enemy conduct of counter-reconnaissance operations as an indicator of defense.
 - (d) Presence and massing of enemy maneuver forces as an initiation of offensive operations.
 - (e) Increase of enemy helicopter activity as an indication of air assault operations.
 - (f) Increase in enemy fighter activity and massing of transport fixed wing aircraft as indicators of airborne assault or start of offensive operations.
 - (g) Increase of enemy field artillery and rocket unit activity as an indicator of the initiation of offensive operations.
 - (h) Presence and nature of activity of enemy engineer systems as an indicator of defensive or offensive operation.

- (i) Meaconing, interference, jamming, interception (MIJI) and other changes in enemy electromagnetic activity as prelude to offensive operations.
- c) DS FA battalion S2 and intelligence section update intelligence products. [ARTEP 6-115-MTP, Task 06-3-01-2510, 2511]
 - (1) Intelligence estimate (may or may not be in written form).
 - (2) Situation template (SIT TEMP).
 - (3) Event template.
 - (4) MCOO in coordination with the DS FA battalion S3.
 - (5) Intelligence portion of the DST.
 - (6) Intelligence collection plan.
 - (7) Database.
 - (8) Enemy OB.
 - (10) DS FA battalion INTSUMs.
 - (11) Intelligence journal/log.
 - (12) Periodic intelligence updates to battery commanders. [FN-NTC]
- 2) The DS FA battalion S3 and operations section evaluate operational information and update operational products. [ARTEP 6-115-MTP, Task 06-3-01-2110, 2120, 2150]
 - a) The DS FA battalion S3 and operations section evaluate information. [ARTEP 6-115-MTP, 06-3-01-2120]
 - (1) Evaluate changes to guidance, direction, and information from the brigade commander or the DS FA battalion commander.
 - (2) Evaluate information which confirms or refutes IPB information which may affect trigger events or the attack of HPTs.

- (3) Evaluate desired DS FA battalion endstates with what is possible based on current DS FA battalion level of preparation, FA support plan, and trends.
 - (a) Battery status.
 - (b) CSS status.
- (4) Evaluates impact of changes to the brigade maneuver plans on the FA support plan.
- (5) Evaluates changes to reinforcing unit plans which might affect DS FA battalion operations.
- (6) Evaluates DS FA battalion OPSEC based on information received from brigade and internal DS FA battalion sources.
- (7) Evaluate information received from the force artillery HQ or GS/GSR units.
- (8) Evaluate radar cueing plan, call for fire zone, friendly fire zones, and artillery target intelligence zones.
- b) The DS FA battalion S3 and operations section update operations products. [ARTEP 6-115-MTP, Task 06-3-01-2110, 2120, 2150]
 - (1) Operational portion of the DST.
 - (2) Synchronization matrix.
 - (3) Operational graphics.
 - (4) MCOO based on input from the DS FA battalion S2 and CMLO.
 - (5) "Running" operations estimate (may or may not be in written form).
 - (6) DS FA battalion status boards and charts which track combat power and preparation status.
 - (7) Timeline of DS FA battalion preparations for battle.
 - (8) DS FA battalion operations journal/log.
 - (9) FA support plan products.

- 3) The DS FA battalion FDO and FDC section evaluate information and update FDC products. [ARTEP 6-115-MTP, Task 06-3-02-2340, 3000, 2340, 2350]
 - a) DS FA battalion FDO and FDC section evaluate information. [ARTEP 6-115-MTP, Task 06-3-02]
 - (1) Evaluate changes to commander's criteria (IFSAS and AFATDS input).
 - (2) Evaluate need to update initialization data based on changes to firing parameters.
 - (3) Evaluate refinements and changes from all FSO/FSEs.
 - (a) Fire plans.
 - (b) Target lists.
 - (c) Schedules of fires.
 - (d) FSCM.
 - (e) Target analyses.
 - (f) Locations of friendly units.
 - (g) No fire areas (NFA).
 - (4) Evaluate information from other staff officers.
 - (a) Status of surveys.
 - (b) Ammunition status.
 - (c) Availability of radar.
 - (5) Evaluate information and status of batteries.
 - (a) Units in ready to fire status.
 - (b) Ammunition status.
 - (c) Latest met message received.
 - (d) Requirements for registration.

- b) DS FA battalion FDO and FDC section update fire direction products.
 - (1) Situation map, FSCM, and location of friendly units.
 - (2) All initialization data; confirmation of positive check of firing data.
 - (3) All fire plans, schedules of fires, groups of fires, FPFs, and other defensive fires with most recent firing data.
- 4) Brigade FSO and FSE section evaluate information and update fire support products. [ARTEP 71-3-MTP, Task 71-3-9001, 9002]
 - a) Brigade FSO and FSE section evaluate information. [ARTEP 71-3 MTP, Task 71-3-9001/2,3]
 - (1) Changes to brigade and DS FA battalion guidance and direction.
 - (2) Desired brigade endstates with what is possible based on current fire support situation and trends.
 - (3) Changes to the brigade fire support plan to ensure synchronization with battalion TF fire support plans.
 - (4) Changes to FA task organization and locations of GS and GSR FA units.
 - (5) Information which confirms or refutes IPB information relative to achieving the brigade commander's intent.
 - (6) Changes to engineer FASCAM requirements on the fire support plan.
 - (7) Changes to Army aviation and Air Force requirements which cause refinements to the fire support plan.
 - (8) Restrictive fire control measures imposed by division or other headquarters.
 - (9) Terrain requirements for FA systems through coordination with brigade S3.
 - (10) NFAs.

- (11) Changes to the situation which should lead to convening the targeting and A2C2 teams.
- b) Update fire support products. [ARTEP MTP 71-3, Task 71-3-9002]
 - (1) Update fire support estimates (may or may not be in written form).
 - (2) Fire support execution matrix (FSEM).
 - (3) Target lists.
 - (4) HPT list.
 - (5) Fire support graphics.
 - (6) Priority targets.
 - (7) FSCMs.
 - (8) Observation plan.
 - (9) Aviation plan (with brigade ALO, brigade naval gunfire liaison officer (NGLO), and brigade Army Aviation LNO):
 - (a) ACAs.
 - (b) SEAD.
- 5) The DS FA battalion RSO evaluates information and updates DS FA battalion survey products. [ARTEP 6-115-MTP, Task 06-8-02-2700]
 - a) The DS FA battalion RSO evaluates information. [ARTEP 6-115-MTP, Task 06-8-02-2700]
 - (1) Changes to guidance and direction, information, and priorities from the DS FA battalion S3.
 - (2) Desired DS FA battalion endstates with what is possible based on current survey situation and trends.
 - (3) Changes to FA task organization to determine impact on survey plan.
 - b) The DS FA battalion RSO updates survey products.

- (1) Updates survey estimate (may or may not be in written form).
 - (2) Survey plan.
- 6) The DS FA battalion CMLO evaluates information and updates DS FA battalion NBC products. [ARTEP 3-117-40 MTP, Task 3-4-0003, 0004, 0007, 0017]
 - a) The DS FA battalion CMLO evaluates information. [ARTEP 3-117-40 MTP, Task 3-4-0004, 0007]
 - (1) Changes to guidance and direction and information from the DS FA battalion S3.
 - (2) Desired DS FA battalion endstates with what is possible based on current NBC situation and trends.
 - (3) Information which confirms or refutes IPB information relative to achieving the DS FA battalion commander's intent.
 - (4) Answers to intelligence queries which alter initial assessment of enemy NBC capabilities.
 - (5) Adjustments to plans from subordinate units which affect DS FA battalion NBC plans.
 - (6) Changes to divisional defensive NBC capabilities.
 - b) The DS FA battalion NBC section updates NBC products. [ARTEP 3-117-40, MTP 3-4-0003; 0017]
 - (1) Updates NBC estimate (may or may not be in written form).
 - (2) MOPP analysis.
 - (3) Enemy NBC capabilities.
 - (4) NBC equipment and supplies inventories.
 - (5) NBC overlays and graphics.
 - (6) MCOO with contaminated areas.

- 7) The DS FA Bn SO and communications section evaluate information and update DS FA battalion communication products. [ARTEP 6-115-MTP, Task 06-5-02-4000, 06-1-01-4100]
 - a) The Bn SO and communications section evaluate information.
 - (1) Changes to DS FA battalion commander's guidance, direction, and information.
 - (2) Desired DS FA battalion endstates with what is possible based on current communication situation and trends.
 - (3) Information which confirms or refutes IPB information relative to achieving the DS FA battalion commander's intent.
 - (4) Answers to intelligence queries which alter initial estimate of enemy electronic and communications capabilities.
 - (5) Adjustments to plans from DS FA battalion CPs and subordinate units on DS FA battalion communications planning.
 - (6) Results of communications checks.
 - b) The DS FA battalion communications section updates communications products.
 - (1) Updates signal estimates (may or may not be in written form).
 - (2) Communications network overlay, area coverage overlay, and dead space overlay.
 - (3) SOIs.
- 8) All DS FA battalion CSS officers (XO, S1, S4, surgeon) evaluate information and update CSS products. [FM 63-20, Chap 3 and 6; FM 6-20-1, Chap 7; ARTEP 6-115-MTP, Task 06-3-01-2170, 12-1-C404, 06-3-01-6430, 08-3-C002, 06-3-01-6300]
 - a) The DS FA battalion CSS officers evaluate information.
 - (1) The DS FA battalion S1 and section evaluate information.
 - (a) Changes in guidance, direction, and orders from the DS FA battalion commander.

- (b) Desired DS FA battalion endstate with what is possible based on personnel status.
 - (c) Personnel reports from the batteries to determine changes to combat power and troops available that impact on DS FA battalion commander's assessment.
 - (d) Personnel assignment priorities relative to meeting DS FA battalion commander's intent.
 - (e) Casualty reporting procedures to ensure timely replacement of personnel.
 - (f) Postal operations to ensure that mail is distributed to assigned personnel and to those attached to brigade elements (FSOs, FISTs, COLTs).
- (2) The DS FA battalion S4 and S4 section evaluate information.
- (a) Changes to DS FA battalion commander's guidance, direction, and information.
 - (b) Logistics reports from the batteries on all classes of supply.
 - (c) Evaluate trains concept, organization, and location for ability to provide support to meet commander's intent and support the tactical plan. [ARTEP 6-115-MTP; 06-2-01-6000/2]
 - (d) Evaluate DS FA battalion supply operations for ability to support DS FA battalion commander's intent. [ARTEP-6-115-MTP; 06-3-01-6430]
 - 1 Priority distribution.
 - 2 Availability and stockage levels of petroleum, oils, and lubricants (POL) products.
 - 3 Status requirements and other information input from FSB.
 - (e) Availability of ground transport assets.

- (f) Availability of air transport assets.
- (3) The DS FA battalion maintenance officer and maintenance section evaluate information: [ARTEP 6-115-MTP; Task 06-3-01-6300, 06-2-01-6000]
 - (a) Priorities for evacuation and repair of damaged equipment as directed by the DS FA battalion commander.
 - (b) On-hand CL IX, available supply list (ASL), and prescribed load list (PLL) stockage levels.
 - (c) Time projections for repair and return of critical combat vehicles (howitzers, ammunition vehicles, and FIST vehicles).
- (4) The DS FA battalion ammunition officer and ammunition section evaluate information: [ARTEP-6-115-MTP, Task 06-3-01-2170; 06-3-02-6500]
 - (a) On-hand quantities and anticipated requirements for CL V as reported by the batteries in coordination with the DS FA battalion S3.
 - (b) Need for prepositioned stocks or special ammunition for operation to meet commander's intent.
- (5) The DS FA battalion surgeon/physician's assistant (PA) and medical section evaluate information. [ARTEP-6-115-MTP; Task 06-3-01-6810]
 - (a) Changes in direction or guidance from the DS FA battalion commander.
 - (b) Evacuation plan and health services plan for adequacy to meet the commander's intent.
 - (c) Current state of health of the command.
- b) The DS FA battalion CSS officers update CSS products.
 - (1) DS FA battalion S1 section updates personnel information. [ARTEP 6-115-MTP, Task 12-1-C404]

Tasks Organized by Outcomes for DS FA Bn BF 19

- (a) Updates personnel services estimate (may or may not be in written form).
 - (b) Personnel status of subordinate and supported units.
 - (c) Casualty feeder reports.
 - (d) Personnel priorities as directed by the DS FA battalion commander.
- (2) DS FA battalion S4 and S4 section update logistical information. [ARTEP 6-115-MTP, Task 06-3-01-6430]
- (a) Supply and transportation portions of updated logistics estimates (may or may not be in written form).
 - (b) Supply:
 - 1 Percent fill of combat basic loads.
 - 2 Configuration and location of immediate and emergency resupply (CL III and V) loads and push packages.
 - 3 Adequacy of CSS supply assets.
 - 4 Supply priorities as directed by the DS FA battalion commander.
 - 5 Establishment and fill of stockpiles and caches.
 - (c) Transportation:
 - 1 Schedules and priorities.
 - 2 Status of supplies, equipment, and materials requiring transport.
 - 3 Status of logistics packages (LOGPAC).
 - 4 Transportation recovery and back-haul plans.
 - 5 MSR and ASR traffic and route conditions.

- (3) The DS FA battalion maintenance officer (BMO) and maintenance section update maintenance information: [ARTEP 6-115-MTP, Task 06-3-01-6300]
 - (a) Number and type of equipment systems on hand and operational.
 - (b) Systems which are non-mission capable and repairable.
 - (c) Projections for repair and return of systems and other essential equipment.
 - (d) CL IX, ASL, and PLL stockage levels.
 - (e) Maintenance priorities and guidelines as directed by the DS FA battalion commander.
- (4) The DS FA battalion ammunition officer and ammunition section update information. [ARTEP 6-115-MTP, Task 06-3-01-2170, 06-3-02-6500]
 - (a) Percent fill of combat basic loads.
 - (b) Configuration and location of immediate and emergency resupply loads.
 - (c) Establishment and fill of stockpiles and caches.
 - (d) Ammunition lots and types of propellants available (e.g., white-bag vs. green-bag, availability of RAP).
- (5) The DS FA battalion surgeon updates medical information. [ARTEP 6-115-MTP, Task 08-3-C0002]
 - (a) Medical evacuation capabilities.
 - (b) CL VIII stocks and resupply availability.
 - (c) Reinforcement and reconstitution of medical assets.
 - (d) Disposition and capability of DS FA battalion medical assets.
 - (e) Medical priorities as directed by the DS FA battalion commander.

- (f) Update all AXPs and battalion aid stations, and coordinate for external support.
- 9) The HHB commander evaluates information and updates products/assessments.
 - a) Capability to move, secure, and support the DS FA battalion CPs.
 - b) Assessment of capabilities versus requirements to move, secure, and support the DS FA battalion TOC/ALOC to the DS FA battalion S3.
- c. The DS FA battalion CPs maintain status. [FM 6-20-1, pp. 3-1 - 3-6]
 - 1) DS FA battalion TOC maintains status. [FM 6-20-1, pp. 3-1 - 3-6]
 - a) Information which supports the DS FA battalion commander's CCIR.
 - b) Current and projected combat power status of subordinate units (e.g., green-amber-red).
 - c) Current operations and intelligence map.
 - (1) Operations overlay (maneuver units in brigade sector, boundaries, all fire support units in brigade sector).
 - (2) Intelligence overlays such as:
 - (a) Situation template overlay.
 - (b) Event template overlay.
 - (3) MCOO.
 - (4) Fire support overlay.
 - (5) Position area overlay.
 - (6) NBC overlay.
 - (7) CSS overlay.
 - (8) Disposition of collection assets/target acquisition overlay.
 - (9) Information on external units conducting R&S operations to prevent fratricide.

- (10) Dispositions and status of patrols and other R&S and security forces.
- (11) Other decision aids and charts as required such as:
 - (a) DST.
 - (b) Synchronization matrix.
 - (c) FSEM.
- (12) Current assessment of effectiveness of fires (e.g., BDA).
[FN-NTC]
- (13) FSCM including ACAs.
- d) Status of key communications links.
- e) Status of preparation activities to ensure compliance with stated mission timelines.
- f) Plans map (with overlays for future operations).
- g) Journals/logs.
- 2) DS FA battalion ALOC maintains status. [FM 6-20-1, Chap 7]
 - a) Current operations and intelligence map.
 - (1) Operations overlay (DS FA battalion, higher and adjacent units).
 - (2) Rear operations, security, and threat overlay.
 - (3) Intelligence situation overlay.
 - (4) Situation template overlay.
 - (5) Event template overlay.
 - (6) MCOO.
 - (7) Fire support overlay.
 - (8) CSS situation map and overlays.
 - (a) MSR and ASR.

- (b) CSS locations, current and projected.
 - (c) Decontamination sites.
 - (d) Ambulance exchange points (AXPs).
- b) Decision aids and charts to assist in maintaining status such as:
 - (1) DST.
 - (2) Synchronization matrix.
 - (3) Current and projected personnel and equipment status.
 - (a) Personnel strength.
 - (b) Operational equipment strength.
 - (c) Status of supplies.
 - (d) Casualties.
 - (e) Replacement personnel status/location.
 - (f) Damaged and non mission capable (NMC) vehicles and equipment.
 - (4) CSS staff journal.
- 3) The DS FA BSOC maintains status:
 - a) Current operations and intelligence map.
 - (1) Operations overlay (DS FA battalion, brigade and adjacent units).
 - (2) Rear operations, security, and threat overlay.
 - (3) Intelligence overlay.
 - (4) Situation template overlay.
 - (5) Event template overlay.
 - (6) CSS situation map and overlays.
 - (a) MSR and ASR.

- (b) CSS locations, current and projected.
 - (c) Decontamination sites.
 - (7) Location and evacuation of EPW and their equipment.
 - (8) Location and evacuation of displaced persons.
 - b) Decision aids, charts, and status boards to assist in maintaining status such as:
 - (1) DST.
 - (2) Synchronization matrix.
 - (3) Current and projected personnel and equipment status.
 - (a) Personnel strength.
 - (b) Operational equipment strength.
 - (c) Status of supplies.
 - (d) Casualties.
 - (e) Replacement personnel.
 - (f) Damaged and NMC vehicles and equipment.
 - (4) Status of key communications links.
 - (5) CSS staff journal.
- 3. **The direct support field artillery battalion commander visualizes the battlefield.**
[TRADOC Pam 11-9, Chap 7 and App D]
 - c. The DS FA battalion commander anticipates future requirements and actions (sequels) based on his projection of the outcome of the current mission. [FM 101-5, pp. 1-15, 4-46, and App C]
 - 2) Mission.
 - a) The brigade and division commander's intents are continuously reviewed for probable mission changes.
 - b) Friendly capabilities and templated/anticipated enemy capabilities are compared to determine projected endstates and probable future plans.

- c) Branches, sequels, and alternative COAs for the current mission are reviewed to determine potential for future planning.
 - d) Risk criteria are reassessed.
 - e) On-order missions of artillery units in sector are reviewed.
- 3) Enemy.
- a) Satisfied PIR, IR, and other intelligence information are reviewed for deviations from original templated enemy action; examples:
 - (1) Enemy's course of action is not as anticipated.
 - (2) Confirmed enemy strength and dispositions are not the same as templated and predicted.
 - (3) The DS FA battalion commander may adjust PIR and IR.
 - (4) The DS FA battalion commander decides whether there is need to change designation of NAIs, TAIs, and HPTs.
 - b) SIT TEMP and event templates are updated and assessed to appraise the DS FA battalion's posture to meet newly identified potential situation.
 - c) HPTs are updated, and the attack-guidance matrix (AGM) and the DST are integrated based on changes to the enemy situation.
- 4) Troops.
- a) Future mission capability of subordinate units is projected.
 - (1) Combat power, current and projected, required to achieve new or previously unidentified tasks.
 - (2) Projected equipment and personnel status.
 - (3) Ability to move, emplace, and fire based on changes to terrain factors.
 - (4) Capability to range critical targets and mass fires as required to meet new conditions or missions.
 - (5) Projected force ratios of friendly forces are compared to updated enemy force capabilities to assess the DS FA

battalion's ability to achieve desired endstate and meet future requirements.

- (6) Projected ammunition status based on ASR/CSR and ability to resupply.
- (7) Target acquisition capability available in the brigade sector.
- (8) On-order missions and positioning of artillery units.
- (9) Risk to mission accomplishment and safety hazards.

5) Terrain.

- a) Impact of terrain factors in and around the proposed firing positions.
- b) Impact of projected weather.
- c) Ability to range projected HPTs with the predominant propellant available.
- d) Deconfliction of available terrain with brigade XO.

6) Time.

- a) Projections of time available versus time required to meet new mission requirements.
- b) Changes to mission timelines necessitated by enemy activities.

5. **The direct support field artillery battalion commander directs and leads subordinate forces.** [TRADOC Pam 11-9, Chap 7 and App D]

- e. The DS FA battalion commander ensures that each BOS is integrated with other BOS during visits, backbriefs, and rehearsals. [FM 101-5, pp. H-36 - H-42]
 - 1) The DS FA battalion commander determines the state of DS FA battalion preparedness through visits and inspections. [Battle Command, Leadership and Decision Making, BCBL, p. 10-15]
 - a) The DS FA battalion commander personally visits and inspects units.
 - (1) Manages his time and prioritizes his visits so that he visits at least those units most critical to the execution of his intent and concentrates on those units and officers that

demonstrate leadership weaknesses; assesses unit capabilities; checks/listens to be sure tasks are understood.

- (2) Questions subordinate leaders down to section level and compares their concepts of the operation with his to ensure that the DS FA battalion plan is understood at all levels.
 - (3) Inspects and spot-checks known weaknesses to ensure that they are corrected.
 - (4) Makes a subjective assessment of cohesion, morale, and esprit.
 - (5) When actions taken are not in accordance with decisions, SOPs, Army standards, and the OPORD, refines plans and preparation efforts to counter weaknesses.
- b) The DS FA battalion commander extends his command presence by directing members of his staff (DS FA battalion XO, CSM, or one or more DS FA battalion staff members) to perform inspections and visits.

Outcome 3

Tactically sound recommendations are developed and critical information is communicated by the Bn staff and subordinate leaders.

Task Elements

1. **The direct support field artillery battalion command posts and staff manage and maintain command, control, and communications.**
 - a. Battalion CPs manage means of communicating information. [FM 101-5, Chap 6 and App B, L; ARTEP 6-115-MTP, Task 06-3-01-2150, 2160, 2120]
 - 4) DS FA battalion S3 directs staff meetings: [AN]
 - a) Ensures that each staff officer disseminates information which is relevant to the entire staff.
 - b) Appraises completeness of information.
 - c) Identifies information gaps and directs actions to fill them.

- 7) All DS FA battalion CPs ensure that information on the situation is communicated between staff officers during shift changes. [FM 71-3, p. 3-25]
 - a) Enemy activities.
 - b) Status of subordinate units.
 - c) Ongoing staff actions which must be monitored, tracked, and completed.
 - d) Timelines and suspenses which must be met.
 - e) Planning for future missions.
- 9) DS FA battalion S3 at the DS FA battalion TOC manages communication: [ARTEP 6-115-MTP, Task 06-06-3-01-2120, FM 6-20-1, pp. 6-7 - 6-21]
 - a) Facilitates control and coordination for the DS FA battalion commander through communication with subordinate, adjacent, and supporting elements.
 - b) Passes processed information and keeps the DS FA battalion commander updated on new information through concise, consolidated updates.
2. **Direct support field artillery battalion command posts acquire, evaluate, and communicate information and maintain status.** [TRADOC Pam 11-9, Section IV; "Battle Command," BCBL-Ft. Leavenworth publication, pp. 43, 65; ARTEP 6-115-20-MTP, Task 06-3-02-1100; FM 34-130, Chap 2; FM 6-20-40, Chap 2; FM 101-5, Chap 3, 5, App J]
 - a. The DS FA battalion staff officers acquire information. [TRADOC Pam 11-9, Chap 7 and App D]
 - 2) The DS FA battalion S3 manages the flow of information in the DS FA battalion TOC and establishes a system to keep the DS FA battalion commander informed. [FM 101-5, pp. 6-2, 6-11, 6-34; ARTEP 6-115-MTP, 6-115/06-3-01-2110]
 - 3) All DS FA battalion staff officers, LNOs, and subordinate leaders obtain information; they commonly: [FM 101-5, pp. 3-84, C-4, Chap 6, App A]
 - a) Focus information collection according to CCIR and staff information requirements relevant to their areas of responsibility and immediately communicate any response to CCIR to the DS FA

battalion commander, XO, and S3. Information required by other staff officers is passed directly to them. [FM 101-5, pp. 6-8, 6-11, 6-16, and C-4]

- b) Obtain information relevant to fulfilling their areas of responsibility for the DS FA battalion's preparations for battle in order to: [FM 101-5, pp. 6-33, 6-34]
 - (2) Keep the commander informed of factors impacting on his ability to perform his role as DS FA battalion commander or FSCOORD for the brigade.
- d) Continually coordinate with each other personally and with external headquarters to obtain information which includes: [FM 101-5, p. 3-84, App A]
 - (1) Specific information requirements, e.g., information to assist the DS FA battalion S2 with refinement of the DS FA battalion intelligence preparation of the battlefield (IPB); information to assist the DS FA battalion S3 regarding units' requirements for use of terrain in the brigade area.
 - (2) Updates/modifications of CCIR as directed by the DS FA battalion commander during:
 - (a) Rehearsals.
 - (b) Backbriefs.
 - (c) Commander visits.
- b. The DS FA battalion CPs evaluate acquired information and update products. [FM 6-20-1 p. 3-1; FM 101-5, Chap 6; ARTEP 6-115-MTP, Task 06-1-02-2500]
 - 1) The DS FA battalion S2 and intelligence section evaluate intelligence information and update IPB products. [ARTEP 6-115-MTP, Task 06-1-02-2500]
- d. The DS FA battalion CPs and staff communicate information. [FM 6-20-1, pp. 3-1 - 3-3; FM 6-20-40, p. 26; FM 6-20-50, App C; FM 101-5, Chap 5 and 6, App A, B and L; FN-NTC]
 - 1) All CPs and staff disseminate information. [FM 6-20-1, pp. 3-1 - 3-3]

- a) Provide briefings to the DS FA battalion commander on the status of mission preparedness.
 - b) Each staff representative communicates critical information needed to:
 - (1) Coordinate DS FA battalion actions and plans.
 - (2) Monitor the situation.
 - (3) Direct DS FA battalion actions.
 - c) All staff officers remain alert for and ensure that critical information they receive is passed to other staff officers who require the information as soon as it is received.
 - d) All staff officers and subordinate commanders develop and make appropriate recommendations about mission preparation to battalion S3, XO, or commander.
- 2) The DS FA battalion S2 section communicates enemy's situation, evaluations of enemy capabilities, and analyses of PIR, IR, and routine information to: [ARTEP 6-115-MTP, Task 06-3-01-2511]
- a) Brigade and DIVARTY S2.
 - b) Reinforcing unit S2s.
 - c) DS FA battalion TOC.
 - d) DS FA battalion ALOC.
 - e) The brigade FSO/targeting officer.
 - f) Subordinate batteries. [FN-NTC]
- 3) The DS FA battalion S3 and operations section communicate operational information. [ARTEP 6-115-MTP, Task 06-3-01-2120, 2150]
- a) Examples:
 - (1) WARNOs/FRAGOs.
 - (2) Coordinating instructions.
 - (3) Reports of the DS FA battalion situation.
 - (4) Evaluations of DS FA battalion state of preparedness.

- (5) Answers to CCIR and IR.
- b) To: [FM 101-5, App A]
 - (1) DS FA battalion commander.
 - (2) DS FA battalion XO.
 - (3) DS FA battalion staff.
 - (4) Batteries and reinforcing units.
 - (5) DS FA battalion ALOC.
 - (6) Brigade FSO.
 - (7) Brigade TAC CP.
- 4) The DS FA battalion FDO and FDC section disseminate the fire plan, target lists, support geometry, attack criteria, subscriber tables, and instructions for degraded operations and continuous operations (CONOPS) to all subordinate and supporting units.
- 5) The brigade FSO, targeting officer and FSE section communicate DS FA battalion fire support situation and analysis of CCIR, IR, and routine information. [FM 101-5, App A; ARTEP 71-3-MTP, Task 71-3-9002/2, 3]
 - a) To: [FM 101-5, App A; ARTEP 71-3-MTP, MTP 71-3-9002/2, 3]
 - (1) Assistant brigade engineer.
 - (2) Brigade S2.
 - (3) Brigade S3.
 - (4) DIVARTY S3.
 - (5) Division FSE.
 - (6) DS FA battalion S3.
 - (7) Subordinate battalion TF FSOs.
 - (8) Brigade ALO, NGLO and Army aviation LNO.
 - (9) FSB commander or brigade officer responsible for rear operations.

- (10) DS FA battalion staff officers who need the information.
- b) The brigade FSO and FSE section coordinate with adjacent and higher FSEs and DS FA battalion TOC to ensure that: [ARTEP 71-3-MTP, Task 71-3-9002/2]
 - (1) Planned brigade fire support will not interfere with other fire support systems, will not disrupt adjacent unit operations, and will not jeopardize troop safety.
 - (2) Fire support information and products (target lists, FSEM, CAS requests, and ATO) are exchanged and refined.
- c) The brigade FSO and FSE section coordinate with DS FA battalion S3 and TF FSOs to verify: [ARTEP 71-3-MTP, Task 71-3-3001/2]
 - (1) Control measures delineating mutual boundaries.
 - (a) Directed by division.
 - (b) Internal boundaries (TFs, scouts, security forces).
 - (2) Air space control measures.
 - (3) Boundaries and fire support coordinating measures.
 - (a) COLT/FIST no fire areas (NFAs).
 - (b) RFL.
 - (4) Signals and conditions under which restrictive measures will be emplaced or lifted.
- 6) The DS FA battalion CMLO communicates the DS FA battalion NBC situation and analysis of CCIR, IR, and routine information. [FM 101-5, App A; ARTEP 3-117-40-MTP, Task 3-4-0007; 0009; 0016]
 - a) To:
 - (1) Brigade CMLO.
 - (2) DS FA battalion subordinate commanders and leaders.
 - (3) Supporting NBC units (e.g., decontamination, reconnaissance).

- (4) DS FA battalion staff officers who need the information.
- b) The DS FA battalion CMLO coordinates with the brigade CMLO and supporting decontamination units to confirm and organize deliberate decontamination plans and preparations. [ARTEP 3-117-40-MTP, Task 3-4-0005]
- 7) The Bn SO and communications section reports DS FA battalion communications situation and other routine information. [FM 101-5, App A; ARTEP 71-3-MTP, Task 71-3-1102/4]
 - a) To:
 - (1) Brigade signal officer.
 - (2) DS FA battalion subordinate commanders and leaders.
 - (3) DS FA battalion staff officers who need the information.
 - b) The DS FA battalion communications section coordinates with adjacent units and brigade headquarters. [AN]
 - (1) Confirms allocation and locations of signal assets and capabilities.
 - (2) Acquire signal equipment to supplement DS FA battalion CPs and subordinate units which require special communications equipment.
- 8) DS FA battalion CSS officers report administrative and logistical situation and routine information to DS FA battalion staff and external sources.
 - a) To:
 - (1) DS FA battalion subordinate commanders and leaders.
 - (2) Brigade S1, Div AG, brigade S4, DMMC, and brigade surgeon.
 - (3) FSB and MSB staffs.
 - (4) DS FA battalion staff officers who need the information.
 - b) DS FA battalion CSS staff coordinates with DS FA battalion staff and DS FA battalion units: [FM 101-5, App A]
 - (1) To identify additional requests for support.

- (a) Transportation assets.
 - (b) Medical augmentation.
 - (c) Repair of vehicles and weapons systems; recovery of damaged vehicles; transportation for return of repaired vehicles.
 - (d) Supply support.
- (2) To coordinate the transportation of supplies and cargo through DS FA battalion units.
- (3) To coordinate routine, emergency, and critical resupply operations (e.g., delivery times, types, and quantities of supplies required).
- (4) To coordinate receipt and processing of replacements.
- (5) To track evacuation of personnel and casualties.
- (6) To process awards, decorations, promotions, and legal actions.
- (7) To coordinate for security protection and support in general of CSS units operating forward.
- c) DS FA battalion S4 coordinates with the DS FA battalion S3 to deconflict terrain requirements and projected locations for:
 - (1) Ammunition transfer points (ATPs).
 - (2) Ammunition supply points (ASPs).
 - (3) Forward arm and refuel points (FARPs).
- d) DS FA battalion CSS staff performs coordination with FSB and supporting CSS headquarters: [FM 6-20-1, pp. 7-8-10]
 - (1) To process requests for support of DS FA battalion.
 - (a) Additional transportation assets.
 - (b) Medical augmentation and support.
 - (c) Support of resupply operations.

- (d) DS and GS maintenance support for vehicles and weapon systems; recovery of damaged vehicles and weapon systems; return of repaired vehicles and weapon systems.
 - (2) DS FA battalion S4 coordinates the transportation of DS FA battalion supplies and cargo through adjacent units based on the locations of the BSA and other brigade or division supply points.
 - (3) DS FA battalion S4 coordinates routine, emergency, and critical resupply of the DS FA battalion (e.g., delivery times, types, and quantities of supplies required).
 - (4) DS FA battalion S1 receives and processes replacements.
 - (5) DS FA battalion S1 tracks evacuation of personnel and casualties.
 - (6) DS FA battalion S1 processes awards, decorations, promotions, and legal actions of DS FA battalion personnel.
3. **The direct support field artillery battalion commander visualizes the battlefield.**
[TRADOC Pam 11-9, Chap 7 and App D]
- c. The DS FA battalion commander anticipates future requirements and actions (sequels) based on his projection of the outcome of the current mission. [FM 101-5, pp. 1-15, 4-46, and App C]
 - 1) The DS FA battalion staff assists the DS FA battalion commander in his assessment of future requirements by providing information. [AN]
 - 2) Mission.
 - a) The brigade and division commander's intents are continuously reviewed for probable mission changes.
 - b) Friendly capabilities and templated/anticipated enemy capabilities are compared to determine projected endstates and probable future plans.
 - c) Branches, sequels, and alternative COAs for the current mission are reviewed to determine potential for future planning.
 - d) Risk criteria are reassessed.

- e) On-order missions of artillery units in sector are reviewed.
- 3) Enemy.
 - a) Satisfied PIR, IR, and other intelligence information are reviewed for deviations from original templated enemy action; examples:
 - (1) Enemy's course of action is not as anticipated.
 - (2) Confirmed enemy strength and dispositions are not the same as templated and predicted.
 - (3) The DS FA battalion commander may adjust PIR and IR.
 - (4) The DS FA battalion commander decides whether there is need to change designation of NAIs, TAIs, and HPTs.
 - b) SIT TEMP and event templates are updated and assessed to appraise the DS FA battalion's posture to meet newly identified potential situation.
 - c) HPTs are updated, and the attack-guidance matrix (AGM) and the DST are integrated based on changes to the enemy situation.
- 4) Troops.
 - a) Future mission capability of subordinate units is projected.
 - (1) Combat power, current and projected, required to achieve new or previously unidentified tasks.
 - (2) Projected equipment and personnel status.
 - (3) Ability to move, emplace, and fire based on changes to terrain factors.
 - (4) Capability to range critical targets and mass fires as required to meet new conditions or missions.
 - (5) Projected force ratios of friendly forces are compared to updated enemy force capabilities to assess the DS FA battalion's ability to achieve desired endstate and meet future requirements.
 - (6) Projected ammunition status based on ASR/CSR and ability to resupply.

- (7) Target acquisition capability available in the brigade sector.
- (8) On-order missions and positioning of artillery units.
- (9) Risk to mission accomplishment and safety hazards.
- b) Necessary changes to positioning of DS FA battalion security elements and subordinate unit local force protection activities are determined to:
 - (1) Counter threats not previously identified during the initial IPB.
 - (2) Meet requirements generated by changes to requirements for withdrawal, battle hand-over, reconstitution, or preparation for follow-on missions.
 - (3) Replace losses in order to continue force protection actions.
- c) Necessary changes to the planned role and employment of fire support assets are determined.
- d) Impact of DS FA battalion plan on other units' plans.
- e) Impact of other units' plans on DS FA battalion plans.
- f) Adequacy of future logistics support areas and MSR/ASRs is determined.
- g) Adequacy of supplies to meet new requirements is determined.
- h) The DS FA battalion commander reviews and updates FFIR as needed.
- 5) Terrain.
 - a) Impact of terrain factors in and around the proposed firing positions.
 - b) Impact of projected weather.
 - c) Ability to range projected HPTs with the predominant propellant available.
 - d) Deconfliction of available terrain with brigade XO.
- 6) Time.

- a) Projections of time available versus time required to meet new mission requirements.
 - b) Changes to mission timelines necessitated by enemy activities.
- e. The DS FA battalion commander informs the brigade commander of the results of his battalion assessment. [AN]
- 4. **The direct support field artillery battalion commander directs changes to the operation or plan.** [TRADOC Pam 11-9, Chap 7 and App D]
 - b. The DS FA battalion commander conducts the MDMP in a time constrained environment. [FM 101-5, pp. 4-41 - 4-60]
 - 1) The DS FA battalion staff provides information and recommendations as required.
 - 3) The DS FA battalion commander develops an FA support plan; considers: [FM 101-5, p. 4-48]
 - a) The brigade commander's intent for fires, the designated HPTs, and critical targets by phase.
 - b) The status of ammunition by type and availability of propellant. (white or green bag).
 - c) Whether the DS FA battalion and reinforcing battalion (if any) can satisfy the commander's intent for fires.
 - d) The commander may request information from the staff to support his COA development. The staff:
 - (1) Uses products and analyses developed during the initial mission MDMP to define branches and sequels for consideration.
 - (2) Provides recommendations to modify existing branches and sequels to meet new requirements.
 - (3) Provides recommendations on developing new branches and sequels based on new requirements.
 - e) METT-T factors:
 - (1) Mission: identifies specified and implied tasks which his DS FA battalion must accomplish.

- (2) Enemy: the DS FA battalion commander identifies:
 - (a) Designated HPTs and other critical targets by phase from the fire support plan.
 - (b) Requirement for sensor collection plan and triggers linked to HPTs.
 - (3) Terrain and weather: the DS FA battalion commander identifies relevant or specific aspects of terrain: slope, cant, site to crest, predominant range to critical HPTs, and changes in met.
 - (4) Troops: the DS FA battalion commander analyzes the DS FA battalion and reinforcing battalion in terms of capability relative to what he believes necessary to accomplish the mission.
 - (a) Capabilities, strengths, and weaknesses of subordinate commanders and units.
 - (b) Weapon systems and equipment.
 - (c) Disposition.
 - (d) Supplies.
 - (e) Troop rest and morale.
 - (5) Time: the DS FA battalion commander determines the time available for planning, preparing, and executing the operation for both enemy and friendly forces. He integrates the time for movement with the time of attack of critical targets using the AGM and FSEM.
- d. The DS FA battalion commander describes his revised concept to his staff. [FM 101-5, p. 4-49]
- 1) The DS FA battalion commander explicitly expresses COA concepts:
 - a) Intent and desired endstate.
 - b) Concept of operations.
 - (1) Major components of maneuver.
 - (2) Integration of combat multipliers.

- (3) Critical points and center of gravity.
 - c) Enemy COA(s) to be considered.
 - d) CCIR.
 - e) Limitations.
 - f) Risks.
 - 2) The DS FA battalion commander provides the concept and guidance to the staff for detailed COA development and mission analysis.
 - 3) If time is available, the DS FA battalion staff conducts mission analysis and:
 - a) Develops details on COA provided by the commander.
 - b) Develops branches and sequels to the selected COA which adhere to the commander's guidance.
 - i. The DS FA battalion staff coordinates internally and with higher, adjacent, and supporting elements to coordinate and integrate the FRAGO. [FM 101-5, App B]
- 5. **The direct support field artillery battalion commander directs and leads subordinate forces.** [TRADOC Pam 11-9, Chap 7 and App D]
 - b. The DS FA battalion commander and staff coordinate and integrate tactical operations through backbriefs. [FM 101-5, pp. 4-59, 4-60]
 - 4) DS FA battalion staff disseminates information and changes which occur as a result of plan refinement.
 - c. The DS FA battalion commander and subordinates plan and prepare for rehearsals. [FM 101-5, App M; FM 71-3, pp. 3-23 - 3-29; FM 6-20-1, pp. 3-12 - 3-14]
 - e. The DS FA battalion commander ensures that each BOS is integrated with other BOS during visits, backbriefs, and rehearsals. [FM 101-5, pp. H-36 - H-42]
 - 1) The DS FA battalion commander determines the state of DS FA battalion preparedness through visits and inspections. [Battle Command, Leadership and Decision Making, BCBL, p. 10-15]
 - a) The DS FA battalion commander personally visits and inspects units.

- (7) Informs DS FA battalion XO and his representatives inspecting preparations of any changes or refinements to the plan which he has directed.

Outcome 4

Sound (feasible, suitable, acceptable) decisions are made by the DS FA Bn Cdr and others within the DS FA Bn.

Task Elements

1. **The direct support field artillery battalion command posts and staff manage and maintain command, control, and communications.**

- a. Battalion CPs manage means of communicating information. [FM 101-5, Chap 6 and App B, L; ARTEP 6-115-MTP, Task 06-3-01-2150, 2160, 2120]

- 2) The DS FA battalion XO, as primary logistician:

NOTE: The DS FA battalion XO is the second in command of the DS FA battalion. He is the senior staff officer of the unit and serves as the primary logistician. He must position himself, based on the location of the DS FA battalion commander, where he can best perform either function (e.g., when the DS FA battalion commander is with the brigade commander and staff, the XO may devote more of his time in his role as second in command). [FM 6-20-1, p. 3-4]

- c) Determines the best organization of the trains to support the DS FA battalion commander's intent based on the following considerations:

- (1) Factors of mission, enemy, terrain, troops, and time available (METT-T).
- (2) Ability to command, control, and communicate logistics operations.
- (3) Security of the trains.
- (4) Location of the brigade support area (BSA).
- (5) Responsiveness.

- 3) The DS FA battalion assistant S3 manages the operations of the DS FA battalion tactical operations center (TOC) and the operations section when the DS FA battalion S3 is not available. [FM 6-20-1, p. 3-2]

- b) Initiates staff action as directed by the DS FA battalion commander, XO, and S3.
 - 4) DS FA battalion S3 directs staff meetings: [AN]
 - d) Initiates staff planning as appropriate.
- 3. **The direct support field artillery battalion commander visualizes the battlefield.**
[TRADOC Pam 11-9, Chap 7 and App D]
 - a. The DS FA battalion commander updates his estimate based on his assessment of the current situation. [FM 100-5, pp. 2-14/15; FM 101-5, pp. 1-4 - 1-11, 3-85, Chap 4 and App C; FM 71-3, p. 3-2; Battle Command, Leadership and Decision Making, BCBL]
 - 1) Mission.
 - a) Identifies changes to:
 - (1) The brigade and division commander's mission and intent.
 - (2) The brigade concept of the operation.
 - (3) The concept of fires.
 - b) Based on reports from the DS FA battalion staff, LNOs, and subordinate/supporting commanders, analyzes progress and completion of DS FA battalion preparation activities and needed endstate before the battle to include:
 - (1) Planning and refinement of plans.
 - (2) Coordination.
 - (3) DS FA battalion elements' preparations.
 - 2) Enemy.
 - a) Validity of estimate.
 - (1) Changes in enemy strength.
 - (2) Changes in enemy capabilities.
 - (3) Changes in projected enemy COA.
 - (4) DS FA battalion commander's designated EEFI.

- b) Collection plan responsiveness.
 - (1) Whether PIR and IR are being filled.
 - (2) Adequacy of DS FA battalion collection assets' positions, activities, and objectives.
 - (a) FISTs, FOs, and COLTs.
 - (b) Army aviation elements.
 - (c) UAVs and ground support radars.
 - (d) Adjacent and forward units.
 - (e) Radars.
 - (3) Need and adequacy of external information sources.
 - (a) Forward air control (FAC) and CAS aircraft.
 - (b) Brigade staff and assets.
 - (c) DIVARTY.
 - (4) Validity of the initial IPB and threat analysis documents.
 - (a) SIT TEMP.
 - (b) Event template.
 - (c) Order of battle.
 - (d) Obstacles and fortification locations.
 - (e) Intelligence estimate.
- 3) Troops.
 - a) Validity of designated FFIR.
 - b) Disposition and locations of:
 - (1) Brigade units. [ARTEP 71-3-MTP, Task 71-3-3003/3]
 - (2) DS FA battalion and other supporting FA and fire support assets. [ARTEP 6-115-20-MTP, Task 06-3-02-110/3]

- (3) Target acquisition and collection systems. [ARTEP 6-115-MTP, Task 06-1-02-2600, 2001]
 - c) Composition and task organization changes of subordinate units. [ARTEP 6-115-MTP, Task 06-3-01-2120]
 - d) Strengths of subordinate units. [ARTEP 6-115-MTP, Task 06-3-01-2120]
 - e) Peculiarities and weaknesses of subordinate units' preparation and the implementation of the FA support plan. [ARTEP 6-115-MTP, Task 06-3-01-2120]
 - f) Vulnerability of friendly units to enemy NBC attacks. [ARTEP 6-115-MTP, Task 20/06-3-02-1240]
 - g) Losses (e.g., to enemy action, maintenance problems) of artillery tubes. [FN]
 - h) Loss (e.g., to enemy action, maintenance) of target acquisition systems, or equipment (e.g., FIST, COLTs, radars, FOs). [FN]
 - i) Losses or shortages of target acquisition personnel. [FN]
 - j) Subordinate unit plans and preparations, which include:
 - (1) Subordinate commander's understanding of and plans to achieve the brigade commander's intent and fire support guidance.
 - (a) Battery commanders' briefback and backbrief of their missions.
 - (b) Visits to units.
 - (2) Physical preparation of target acquisition systems and observers (e.g., FOs, enlisted terminal attack controller [ETAC], SALTs, COLTs).
 - (3) Occupation of firing positions and preparations to fire by batteries.
 - (a) Troop leading procedures.
 - (b) Pre-combat inspections.
- 4) Terrain.

- a) Changes to initial terrain estimate and impact of differences on the concept of the operation.
 - (1) Terrain factors.
 - (a) Trafficability.
 - (b) Degree of slope or cant.
 - (c) Ability to emplace vehicles' spades.
 - (d) Site to crest.
 - (e) Avenues of approach.
 - (2) Obstacles and progress of DS FA battalion efforts to reinforce the terrain.
- b) Weather and forecasted weather factors' validity.
 - (1) Visibility (including fog and cloud cover) and light data.
 - (2) Effects of weather.
 - (a) Impact on trafficability.
 - (b) Impact of met on delivery of fires.
- 5) Time.
 - a) Accomplishment of key mission preparations in accordance with planned timelines.
 - b) Based on what has and has not been accomplished, sufficiency of time available to complete all tasks.
- 6) The DS FA battalion commander projects the outcome of the current battle based on his evaluation of the current plan and DS FA battalion preparedness by using BOS assessment. [FM 101-5, pp. 1-11 - 1-17, 4-48, App C]
 - a) Intelligence.
 - (1) The DS FA battalion commander assesses HPTs by phase.
 - (2) The DS FA battalion commander assesses the collection plan to determine if the products will provide the necessary

trigger for attack of HPTs approved by the brigade commander.

- (3) The DS FA battalion commander assesses the critical targets by phase of maneuver to ensure that unit moves are integrated.

b) Fire support.

- (1) The DS FA battalion commander determines if fire plans and target lists have been refined for changes due to:
 - (a) Bottom-up refinements.
 - (b) Refinement of target location.
 - (c) Refinement of firing data.
- (2) The commander assesses all FSCM to determine if they are:
 - (a) Current.
 - (b) Accurate.
 - (c) Proper to support the tactical plan.
- (3) The DS FA battalion commander ensures that adequate fire support is available for forces in contact.
- (4) The DS FA battalion commander assesses the FA support plan to ensure that it supports the fire support plan and provides for priority to the main effort.
- (5) The DS FA battalion commander ensures adequate fire support for the brigade R&S and counter-reconnaissance forces.
- (6) The DS FA battalion commander assesses the target acquisition plan.
 - (a) Status of radars.
 - (b) Radar cueing plan.
 - (c) Primary and alternate trigger for each HPT.

- c) Mobility and survivability.
 - (1) Commander reviews obstacle plan for:
 - (a) Status of obstacle emplacement.
 - (b) Fires planned to support purpose of all obstacles.
 - (c) Principal and alternate observer designated to trigger fires on each obstacle.
 - (d) Changes to FASCAM employment plans required by the brigade engineer and brigade FSO based on new information.
- d) CSS.
 - (1) CSS priorities based on new information.
 - (2) Supply support adequate to support the operation.
 - (3) Delivery of supplies to DS FA battalion units on time to support the operation.
 - (4) Sufficient transportation assets available and operational to support the operation.
 - (5) Adequate personnel fill to enable DS FA battalion units to accomplish their missions and tasks.
 - (6) Status of morale in the DS FA battalion.
 - (7) Current and projected state of maintenance of equipment in the DS FA battalion.
 - (8) Status of medical personnel, supplies, and equipment to support the operation.
- e) Command and control.
 - (1) Status of key communications links within the DS FA battalion, with supported units FSO/FIST, with brigade and DIVARTY, and with the reinforcing battalion (digital and voice).
 - (2) Current and projected locations of DS FA battalion CPs provide for continuous command and control.

- b. The DS FA battalion commander projects the outcome of the current mission based on his evaluation of the current plan and DS FA battalion preparedness. [FM 101-5, p. 1-11 - 1-17, 4-48]
- c. The DS FA battalion commander anticipates future requirements and actions (sequels) based on his projection of the outcome of the current mission. [FM 101-5, pp. 1-15, 4-46, and App C]
- d. The DS FA battalion commander decides whether the plan needs to be changed. [FM 101-5, p. 4-48]
 - 1) The DS FA battalion commander decides the current plan meets the assessed situation and continues to monitor and direct DS FA battalion battle preparations. [FM 101-5, p. 4-48]
 - 2) The DS FA battalion commander decides the plan must be modified. [FM 101-5, p. 4-48]
 - a) The DS FA battalion commander decides to initiate a FRAGO; considers: (See task 4 for description of how to develop and issue this FRAGO) [FM 101-5, pp. 1-14 - 1-16]
 - (1) Whether COAs previously developed can be modified and developed as the new plan.
 - (2) Time available to develop, coordinate, implement, and rehearse a new plan.
 - (3) Subordinate units' time to complete new preparation requirements under the new plan and task organization.
 - (4) The DS FA battalion staff's ability to continue to monitor and direct current DS FA battalion activities while meeting new planning requirements.
 - b) The DS FA battalion commander assesses the impact of new FRAGOs from brigade.
 - (1) Time required to plan and prepare for new mission based on current mission timelines.
 - (2) Ability of the DS FA battalion to respond to the new situation based on level of mission preparedness.

- (a) Fire units available to respond without impacting DS FA battalion ability to perform the current mission.
 - (b) Availability of CS, CSS, and supplies to support the new situation without impacting on support necessary for the current mission.
 - (3) Capability of the staff to dedicate time and effort to plan and coordinate new missions; impact of diverting key staff members from monitoring preparations for the current mission to planning for a new mission.
 - c) The DS FA battalion commander determines effects on the military decision-making process (MDMP) based on complexity, potential probable confusion on the battlefield, staff availability, and time available. [FM 101-5, Chap]
4. **The direct support field artillery battalion commander directs changes to the operation or plan.** [TRADOC Pam 11-9, Chap 7 and App D]
- b. The DS FA battalion commander conducts the MDMP in a time constrained environment. [FM 101-5, pp. 4-41 - 4-60]
 - 1) The DS FA battalion staff provides information and recommendations as required.
 - 2) When planning changes to current orders during the preparation phase of the battle, the DS FA battalion commander must consider:
 - a) Using products developed during the MDMP for the current mission as reference points from which modifications are made to predetermined branches and sequels.
 - (1) Modifications to fire support plan:
 - (a) Approved by brigade commander.
 - (b) Assess requirement to modify existing HPTs.
 - (c) Modifications to HPTs may require modification of other products:
 - 1 DST.
 - 2 AGM.

3 FSEM.

- (2) Terrain analysis.
 - (a) Impact on range to critical targets by phase as a result of changes to HPTs.
 - (b) Assess requirements for new positions and movement plans using existing products.
- 1 MCOO.
- 2 Modify position area overlay.
- (3) Enemy order of battle and updated IPB products.
 - (a) Modify sensor collection plan.
 - (b) Modify triggers.
- (4) Updated staff estimates.
 - (a) DS FA battalion capabilities.
 - (b) Constraints.
- (5) PIR, EEFI, and FFIR requested by the commander.
- b) The DS FA battalion commander and staff simultaneously monitor, plan, and direct all aspects of DS FA battalion operations (e.g., execution of fire support for the counter-reconnaissance battle, preparations for the current mission, changes to the current plan, and the next mission being formulated).
- c) The DS FA battalion commander and staff anticipate the outcome of the current fight to begin considering future requirements and actions.
- d) Components of the DS FA battalion commander's assessment, based on the situation, are:
 - (1) Current situation compared to required battle endstates of friendly and enemy forces.
 - (2) Recognition of similarities or differences between initial plan and new requirements.

- (3) Assessment of friendly force posture, enemy probable actions and postures, and battlespace.
- 3) The DS FA battalion commander develops an FA support plan; considers: [FM 101-5, p. 4-48]
- a) The brigade commander's intent for fires, the designated HPTs, and critical targets by phase.
 - b) The status of ammunition by type and availability of propellant. (white or green bag).
 - c) Whether the DS FA battalion and reinforcing battalion (if any) can satisfy the commander's intent for fires.
 - d) The commander may request information from the staff to support his COA development. The staff:
 - (1) Uses products and analyses developed during the initial mission MDMP to define branches and sequels for consideration.
 - (2) Provides recommendations to modify existing branches and sequels to meet new requirements.
 - (3) Provides recommendations on developing new branches and sequels based on new requirements.
 - e) METT-T factors:
 - (1) Mission: identifies specified and implied tasks which his DS FA battalion must accomplish.
 - (2) Enemy: the DS FA battalion commander identifies:
 - (a) Designated HPTs and other critical targets by phase from the fire support plan.
 - (b) Requirement for sensor collection plan and triggers linked to HPTs.
 - (3) Terrain and weather: the DS FA battalion commander identifies relevant or specific aspects of terrain: slope, cant, site to crest, predominant range to critical HPTs, and changes in met.

- (4) Troops: the DS FA battalion commander analyzes the DS FA battalion and reinforcing battalion in terms of capability relative to what he believes necessary to accomplish the mission.
 - (a) Capabilities, strengths, and weaknesses of subordinate commanders and units.
 - (b) Weapon systems and equipment.
 - (c) Disposition.
 - (d) Supplies.
 - (e) Troop rest and morale.
 - (5) Time: the DS FA battalion commander determines the time available for planning, preparing, and executing the operation for both enemy and friendly forces. He integrates the time for movement with the time of attack of critical targets using the AGM and FSEM.
- 4) The DS FA battalion commander conducts mission risk assessment to ensure that conditions most likely to cause mission failure and accidents (including fratricide) have been mitigated.
- a) DS FA battalion units have been tasked within their capabilities.
 - b) Procedural and positive risk-reduction control measures have been implemented, for example:
 - (1) Emphasizes situational awareness.
 - (2) Emphasizes positive target identification.
 - (3) SOPs are consistent with doctrine and are adhered to.
 - (4) Doctrinally correct terminology is applied to all control measures; e.g., FSCLs, RFLs.
 - (5) Rules of engagement are clear.
- 5) The commander reviews his current CCIR to determine: [FM 101-5, pp. 4-47/48]
- a) Validity of CCIR.

- b) New CCIR required to provide the DS FA battalion commander with the information needed to make decisions about the plan.
- c. The DS FA battalion commander performs a suitability-feasibility-acceptability analysis of the new plan. The commander performs the analysis by himself or with staff assistance. [FM 101-5, p. 4-51]
 - 1) Suitability factors:
 - a) New concept accomplishes the DS FA battalion mission.
 - b) New concept meets the brigade and division commander's intents.
 - c) The plan accomplishes his intent for the DS FA battalion's endstate relative to the intended endstate for the enemy.
 - 2) Feasibility factors:
 - a) Time to execute the plan(s) as designed.
 - (1) Duration of events.
 - (2) Time and distance factors for maneuver and fires.
 - b) There is sufficient ground and air space to accomplish the plan(s) as designed.
 - (1) Roads and terrain support the plan.
 - (2) Depth of action.
 - c) The DS FA battalion has the means to execute the plan(s) as designed.
 - (1) DS FA battalion combat power versus the enemy (force ratios).
 - (2) Special equipment and personnel to accomplish the mission (e.g., bridging equipment, mine clearing, Army aviation, CAS, etc.).
 - d) Impact on on-going preparation activities.
 - e) Impact on subordinate units and combat multipliers.
 - f) Requirements to alter task organization.

- 3) Acceptability: mission can be accomplished within acceptable levels of risk to mission success and loss of personnel and equipment.
- d. The DS FA battalion commander describes his revised concept to his staff. [FM 101-5, p. 4-49]
 - 1) The DS FA battalion commander explicitly expresses COA concepts:
 - a) Intent and desired endstate.
 - b) Concept of operations.
 - (1) Major components of maneuver.
 - (2) Integration of combat multipliers.
 - (3) Critical points and center of gravity.
 - c) Enemy COA(s) to be considered.
 - d) CCIR.
 - e) Limitations.
 - f) Risks.
 - 2) The DS FA battalion commander provides the concept and guidance to the staff for detailed COA development and mission analysis.
 - 3) If time is available, the DS FA battalion staff conducts mission analysis and:
 - a) Develops details on COA provided by the commander.
 - b) Develops branches and sequels to the selected COA which adhere to the commander's guidance.

Outcome 5

Affected units and personnel receive relevant direction, changes, and refinements to plans in time to perform troop leading procedures and required preparation.

Task Elements

1. **The direct support field artillery battalion command posts and staff manage and maintain command, control, and communications.**

- a. Battalion CPs manage means of communicating information. [FM 101-5, Chap 6 and App B, L; ARTEP 6-115-MTP, Task 06-3-01-2150, 2160, 2120]

- 2) The DS FA battalion XO, as primary logistician:

NOTE: The DS FA battalion XO is the second in command of the DS FA battalion. He is the senior staff officer of the unit and serves as the primary logistician. He must position himself, based on the location of the DS FA battalion commander, where he can best perform either function (e.g., when the DS FA battalion commander is with the brigade commander and staff, the XO may devote more of his time in his role as second in command). [FM 6-20-1, p. 3-4]

- a) Supervises the activities of the DS FA battalion CSS staff.
 - b) Ensures that DS FA battalion units are logistically sustained.
 - c) Determines the best organization of the trains to support the DS FA battalion commander's intent based on the following considerations:
 - (1) Factors of mission, enemy, terrain, troops, and time available (METT-T).
 - (2) Ability to command, control, and communicate logistics operations.
 - (3) Security of the trains.
 - (4) Location of the brigade support area (BSA).
 - (5) Responsiveness.
- b. DS FA battalion CPs maintain communications. [ARTEP 6-115-MTP, Task 6-2-02-3000, 5000, 06-2-02-4000, 06-2-01-6000; FM 6-20-40, Chap 2]
 - 6) Firing elements of the DS and reinforcing battalions are repositioned, if necessary, to support the operation.
 - a) Units are positioned in depth to provide continuous support during movement.
 - b) Hasty displacement criteria are reviewed for units required to deliver high volumes of fire (i.e., to support preparation fires, obscuration fires, field artillery-delivered FASCAM).

- c) The DS FA battalion FDO reviews the requirements for accurate predicted fires to determine the need for precision registration.
 - (1) Accurate target location and size.
 - (2) Accurate firing unit location.
 - (3) Weapon and ammunition information.
 - (4) Met information.
 - (5) Computational procedures.
 - d) The DS FA battalion FDO directs a precision registration if required.
- 2. **Direct support field artillery battalion command posts acquire, evaluate, and communicate information and maintain status.** [TRADOC Pam 11-9, Section IV; "Battle Command," BCBL-Ft. Leavenworth publication, pp. 43, 65; ARTEP 6-115-20-MTP, Task 06-3-02-1100; FM 34-130, Chap 2; FM 6-20-40, Chap 2; FM 101-5, Chap 3, 5, App J]
 - a. The DS FA battalion staff officers acquire information. [TRADOC Pam 11-9, Chap 7 and App D]
 - 3) All DS FA battalion staff officers, LNOs, and subordinate leaders obtain information; they commonly: [FM 101-5, pp. 3-84, C-4, Chap 6, App A]
 - b) Obtain information relevant to fulfilling their areas of responsibility for the DS FA battalion's preparations for battle in order to: [FM 101-5, pp. 6-33, 6-34]
 - (1) Monitor and modify preparation activities as necessary.
 - d. The DS FA battalion CPs and staff communicate information. [FM 6-20-1, pp. 3-1 - 3-3; FM 6-20-40, p. 26; FM 6-20-50, App C; FM 101-5, Chap 5 and 6, App A, B and L; FN-NTC]
 - 4) The DS FA battalion FDO and FDC section disseminate the fire plan, target lists, support geometry, attack criteria, subscriber tables, and instructions for degraded operations and continuous operations (CONOPS) to all subordinate and supporting units.
 - 5) The brigade FSO, targeting officer and FSE section communicate DS FA battalion fire support situation and analysis of CCIR, IR, and routine information. [FM 101-5, App A; ARTEP 71-3-MTP, Task 71-3-9002/2, 3]

- b) The brigade FSO and FSE section coordinate with adjacent and higher FSEs and DS FA battalion TOC to ensure that: [ARTEP 71-3-MTP, Task 71-3-9002/2]
 - (1) Planned brigade fire support will not interfere with other fire support systems, will not disrupt adjacent unit operations, and will not jeopardize troop safety.
 - (2) Fire support information and products (target lists, FSEM, CAS requests, and ATO) are exchanged and refined.
- c) The brigade FSO and FSE section coordinate with DS FA battalion S3 and TF FSOs to verify: [ARTEP 71-3-MTP, Task 71-3-3001/2]
 - (1) Control measures delineating mutual boundaries.
 - (a) Directed by division.
 - (b) Internal boundaries (TFs, scouts, security forces).
 - (2) Air space control measures.
 - (3) Boundaries and fire support coordinating measures.
 - (a) COLT/FIST no fire areas (NFAs).
 - (b) RFL.
 - (4) Signals and conditions under which restrictive measures will be emplaced or lifted.
- 8) DS FA battalion CSS officers report administrative and logistical situation and routine information to DS FA battalion staff and external sources:
 - b) DS FA battalion CSS staff coordinates with DS FA battalion staff and DS FA battalion units: [FM 101-5, App A]
 - (1) To identify additional requests for support.
 - (a) Transportation assets.
 - (b) Medical augmentation.
 - (c) Repair of vehicles and weapons systems; recovery of damaged vehicles; transportation for return of repaired vehicles.

- (d) Supply support.
 - (2) To coordinate the transportation of supplies and cargo through DS FA battalion units.
 - (3) To coordinate routine, emergency, and critical resupply operations (e.g., delivery times, types, and quantities of supplies required).
 - (4) To coordinate receipt and processing of replacements.
 - (5) To track evacuation of personnel and casualties.
 - (6) To process awards, decorations, promotions, and legal actions.
 - (7) To coordinate for security protection and support in general of CSS units operating forward.
- c) DS FA battalion S4 coordinates with the DS FA battalion S3 to deconflict terrain requirements and projected locations for:
 - (1) Ammunition transfer points (ATPs).
 - (2) Ammunition supply points (ASPs).
 - (3) Forward arm and refuel points (FARPs).
- d) DS FA battalion CSS staff performs coordination with FSB and supporting CSS headquarters: [FM 6-20-1, pp. 7-8-10]
 - (1) To process requests for support of DS FA battalion.
 - (a) Additional transportation assets.
 - (b) Medical augmentation and support.
 - (c) Support of resupply operations.
 - (d) DS and GS maintenance support for vehicles and weapon systems; recovery of damaged vehicles and weapon systems; return of repaired vehicles and weapon systems.
 - (2) DS FA battalion S4 coordinates the transportation of DS FA battalion supplies and cargo through adjacent units

based on the locations of the BSA and other brigade or division supply points.

- (3) DS FA battalion S4 coordinates routine, emergency, and critical resupply of the DS FA battalion (e.g., delivery times, types, and quantities of supplies required).
- (4) DS FA battalion S1 receives and processes replacements.
- (5) DS FA battalion S1 tracks evacuation of personnel and casualties.
- (6) DS FA battalion S1 processes awards, decorations, promotions, and legal actions of DS FA battalion personnel.

3. **The direct support field artillery battalion commander visualizes the battlefield.**
[TRADOC Pam 11-9, Chap 7 and App D]

- c. The DS FA battalion commander anticipates future requirements and actions (sequels) based on his projection of the outcome of the current mission. [FM 101-5, pp. 1-15, 4-46, and App C]

- 4) Troops.
 - b) Necessary changes to positioning of DS FA battalion security elements and subordinate unit local force protection activities are determined to:
 - (1) Counter threats not previously identified during the initial IPB.
 - (2) Meet requirements generated by changes to requirements for withdrawal, battle hand-over, reconstitution, or preparation for follow-on missions.
 - (3) Replace losses in order to continue force protection actions.
- 6) Time.
 - a) Projections of time available versus time required to meet new mission requirements.
 - b) Changes to mission timelines necessitated by enemy activities.

4. **The direct support field artillery battalion commander directs changes to the operation or plan.** [TRADOC Pam 11-9, Chap 7 and App D]

- a. The DS FA battalion commander and/or staff issue WARNOs to alert staff members and subordinate elements that the plan will be changed. WARNOs may include: [FM 101-5, p. 4-55]
 - 1) The enemy situation; battlefield events; and the friendly mission, task, or operation.
 - 2) The brigade and division commander's missions.
 - 3) The brigade and division commander's intents.
 - 4) The DS FA battalion commander's intent statement.
 - 5) The earliest time of movement or degree of notice the DS FA battalion commander gives to the main body.
 - 6) Orders for preliminary action, advanced party reconnaissance, and selection of position.
 - 7) Service support instructions, any special equipment necessary, regrouping of transportation, or preliminary moves to assembly areas.
 - 8) The rendezvous point or time for assembly of an orders group, whether commanders or representatives are to attend, and time needed for issuing written orders.
- b. The DS FA battalion commander conducts the MDMP in a time constrained environment. [FM 101-5, pp. 4-41 - 4-60]
 - 1) The DS FA battalion staff provides information and recommendations as required.
 - 2) When planning changes to current orders during the preparation phase of the battle, the DS FA battalion commander must consider:
 - a) Using products developed during the MDMP for the current mission as reference points from which modifications are made to predetermined branches and sequels.
 - (1) Modifications to fire support plan:
 - (a) Approved by brigade commander.
 - (b) Assess requirement to modify existing HPTs.
 - (c) Modifications to HPTs may require modification of other products:

Tasks Organized by Outcomes for DS FA Bn BF 19

- 1 DST.
- 2 AGM.
- 3 FSEM.
- (2) Terrain analysis.
 - (a) Impact on range to critical targets by phase as a result of changes to HPTs.
 - (b) Assess requirements for new positions and movement plans using existing products.
 - 1 MCOO.
 - 2 Modify position area overlay.
- (3) Enemy order of battle and updated IPB products.
 - (a) Modify sensor collection plan.
 - (b) Modify triggers.
- (4) Updated staff estimates.
 - (a) DS FA battalion capabilities.
 - (b) Constraints.
- (5) PIR, EEFI, and FFIR requested by the commander.
- b) Typically, modifications to existing fire plans may provide the synchronization of fire support required to support a new course of action. If not, the FSO/FSCoord may be required to use quick fire planning techniques (addressed in function analysis of brigade BF 15).
- 6) The DS FA battalion commander and staff simultaneously monitor, plan, and direct all aspects of DS FA battalion operations (e.g., execution of fire support for the counter-reconnaissance battle, preparations for the current mission, changes to the current plan, and planning for the next mission when information is available).
- 7) The DS FA battalion commander and staff provide direction, guidance, and monitoring of DS FA battalion preparations to be ready no later than

the designated time, make changes in a timely manner, and, if appropriate, plan for a future mission.

- e. The DS FA battalion staff prepares and publishes FRAGOs. [FM 101-5, App H]
 - 1) The DS FA battalion S3 manages and supervises internal and external coordination by the staff to integrate plan refinements.
 - 2) The staff takes prompt action to accomplish the guidance given by the commander.
 - a) Publishes refinements to orders, planning, and execution products such as DST, synchronization matrix, and FSEM.
 - b) Initiates requests to higher and adjacent units for additional support.
 - 3) The staff at the DS FA battalion TOC refines plans, facilitates planning for future operations, identifies and corrects problems identified during subordinate unit preparations, and coordinates additional support from DIVARTY.
 - 4) The DS FA battalion staff develops FRAGOs reflecting changes to the initial plan for the DS FA battalion commander's approval: [FM 101-5, App H]
 - a) Graphics and control measures for the operation.
 - b) DST and synchronization matrix.
 - c) Fire support plan, FSEM, FSCM.
 - d) Communications plan.
 - e) CSS plan.
- f. The DS FA battalion S3 issues complete FRAGOs which contain: [FM 101-5, App H]
 - 1) Allocation of all FA assets.
 - 2) Projected changes to the allocation of FA assets based on tactical contingencies in the OPORD (on-order missions).
 - 3) The DS FA battalion commander's concept of the operation.

- 4) Requirements for positioning and movement of firing units to support the fire support plan (FA support matrix).
 - 5) The controlled supply rate for ammunition, if any.
 - 6) Arrangements for command and control if they differ from unit SOPs.
 - 7) Specific instructions for attached target acquisition assets, survey, and met.
 - 8) Specific instructions for combat service support, if different from normal unit SOPs.
 - 9) Restrictions on ammunition expenditures, types of fires, and limiting risk to friendly troops.
 - 10) Current and on-order fire support coordinating measures.
 - 11) The target list developed by the brigade.
 - 12) Schedules for preplanned fires.
 - 13) Special instructions on rules of engagement, fire support communications, and logistic support.
 - 14) Locations of CPs, ammunition supply points (ASPs), and ammunition transfer points (ATPs).
 - 15) NBC coordinating instructions.
- g. The DS FA battalion commander approves FRAGOs and directs members of his staff to issue FRAGOs based on his approval or in compliance with his guidance. [FM 101-5, p. 4-49]
- h. The DS FA battalion commander takes actions to ensure that subordinate leaders have a clear understanding of his intent and concept. [FM 101-5, pp. 4-59/60]
- 1) The DS FA battalion commander directs the DS FA battalion leadership to conduct leaders' reconnaissances.
 - 3) The DS FA battalion commander briefs and disseminates updated orders, DST, synchronization matrix, and other mission documents.
5. **The direct support field artillery battalion commander directs and leads subordinate forces.** [TRADOC Pam 11-9, Chap 7 and App D]

- a. The DS FA battalion commander exercises leadership and maintains unit cohesion and discipline. [Battle Command, Leadership and Decision Making, BCBL, p. 11-15, FM 22-100, Chap 4, 5, and 6]
 - 1) The DS FA battalion commander checks and ensures that orders are executed; reinforces discipline by demanding compliance to standards and his guidance.
 - 5) The DS FA battalion commander monitors subordinates and himself for degradation of mental and physical capability. [Battle Command, Leadership and Decision Making, BCBL, pp. 27, 28]
 - a) DS FA battalion commander monitors his own physical and mental state and gets rest.
 - b) DS FA battalion XO monitors the DS FA battalion commander's and staff members' physical and mental state and recommends rest periods.
 - c) DS FA battalion commander ensures that subordinate commanders and staff are rested and prepared for battle.
- b. The DS FA battalion commander and staff coordinate and integrate tactical operations through backbriefs. [FM 101-5, pp. 4-59, 4-60]
 - 4) DS FA battalion staff disseminates information and changes which occur as a result of plan refinement.
- d. The DS FA battalion conducts rehearsals.
 - 1) The DS FA battalion conducts multiple rehearsals if time is available, to include contingency plans. [FM 101-5, p. M-15]
 - a) Combined arms maneuver rehearsal.
 - b) CSS/logistics rehearsal.
 - c) Fire support rehearsals.
 - (1) Brigade FS rehearsal.
 - (2) DS FA battalion technical rehearsal.
 - 2) The DS FA battalion conducts realistic and thorough rehearsals; replicating the enemy accurately and: [FM 6-20-1, pp. 3-12 - 3-14]

Tasks Organized by Outcomes for DS FA Bn BF 19

- a) A slow walk-through of the mission is performed, with staff and subordinate leaders explaining their actions at every step to ensure understanding; then, with minimal guidance and at combat speed.
 - b) Integration and coordination of the BOS are accomplished by rehearsing each element's movement and positioning to ensure that all elements can be in place at designated times and that elements' activities do not interfere with other units' activities.
 - c) Rehearsals are conducted from the point of threat identification up to the point where the DS FA battalion is able to complete the mission and achieve the destruction of the enemy.
 - d) All DS FA battalion systems (vehicles, troops, combat multipliers) participate if time is available; representative portions of DS FA battalion systems participate if time or space is not available.
 - e) During the rehearsal, participants execute exactly as they would in combat.
- 3) The DS FA battalion commander controls and participates in the DS FA battalion rehearsal. [FM 6-20-1, pp. 3-12 - 3-14]
- a) Ensures that rehearsal meets his goals.
 - b) Briefs participants (or gives guidance to the S3 to brief) prior to the rehearsal.
 - (1) Introduces each participant with a brief description of his duties and roles for the mission.
 - (2) Provides an overview:
 - (a) Missions and tasks to be rehearsed.
 - (b) Sequence of activities rehearsed.
 - (c) Rehearsal timelines (e.g., time to rehearse each event/phase of the mission).
 - (d) Description of rehearsal site.
 - (3) The DS FA battalion commander verifies that subordinate commanders understand their mission. [FM 101-5, p. M-15]
 - c) Establishes the standards, outcomes, and goals to be achieved.

- (1) Battery commanders, staff, FDCs and FSOs at all levels, and leaders fully understand their responsibilities within the parameters of the DS FA battalion commander's intent.
 - (2) Vulnerabilities in the plan are identified, and the means to mitigate them are determined.
 - (3) Checks are made to determine whether key aspects of the plan are feasible (e.g., observers confirm that they can see their targets; FDCs confirm that they have ballistic solutions to their targets).
 - d) Exercises the decision-making process he expects to be faced with during the mission:
 - (1) Identifies times or events during the mission which will require him to make decisions.
 - (2) Observes how his decisions are implemented by DS FA battalion units and the staff.
 - (3) Identifies the key decision points which are most likely to produce the outcomes which supports his intent and desired endstate.
 - (4) Utilizes his decision-support aids (e.g., DST, synchronization matrix, FSEM).
 - e) Tracks the effect of DS FA battalion actions to achieve the desired endstate (with DS FA battalion S3 assistance).
- 4) The DS FA battalion S3 participates in DS FA battalion rehearsals. [FM 6-20-1, p. 3-12]
- a) Describes overall operation.
 - b) Ensures that DS FA battalion fires are integrated in terms of timing to support brigade movement and maneuver.
 - c) Describes the positioning and movement of the DS FA battalion commander during the mission.
 - d) Describes the positioning and movement of DS FA battalion CPs during the mission.
 - e) Assists the DS FA battalion commander in tracking the effect of DS FA battalion actions to achieve the desired endstate.

- 5) The DS FA battalion S2 participates in DS FA battalion rehearsals. [FM 6-20-1, p. 3-12]
 - a) Portrays enemy actions and responses.
 - (1) Replicates all plausible and possible events and activities.
 - (2) Ensures that enemy actions are properly depicted to the DS FA battalion commander, subordinate commanders and staff.
 - (3) Portrays actions of HPT and other activities at NAIs and TAIs.
 - (4) Briefs threats to batteries by phase. [FN-NTC]
 - b) Provides updated enemy and terrain information.
- 6) DS FA battalion FDO participates in the rehearsal. [FM 6-20-1, p. 3-12]
 - a) Supervises tactical and technical fire direction.
 - b) Ensures that all FDCs compute fire commands and acknowledge fire support coordinating measures.
 - c) Develops and supervises input of appropriate parameters into fire direction computers.
 - d) Confirms that FDCs can compute ballistic solutions to targets.
- 7) The DS FA battalion S4 (representing CSS staff) participates in rehearsals. [FM 6-20-1, p. 3-12]
 - a) Describes CSS support of the DS FA battalion.
 - b) Portrays positioning and movement of CSS assets.
- 8) FSO, FISTs, and COLTs. [FM 6-20-1, p. 3-12]
 - a) Fire assigned targets.
 - b) Ensure that assigned missions, especially high-priority ones, like FPFs, are loaded into the buffers of forward entry devices (FED).
 - c) Point out and describe control measures (e.g., trigger lines and execution criteria), restrictions, and communications (primary and

alternate) between observers and fire support elements which are practiced.

- d) Ensure that company/team fire support plans comply with the commander's guidance.
- e) Describe observer and back-up observer positioning, and responsibilities.
- f) Ensure that indirect fires "triggers":
 - (1) Are understood and demonstrated by observers.
 - (2) Can be executed by the fire support system (e.g., FA, mortars, CAS) based on ranges and timing.
 - (3) Are integrated with ground maneuver.
- 9) The DS FA battalion CMLO participates in DS FA battalion rehearsals. [FM 6-20-1, p. 3-12]
 - a) Describes NBC decontamination support of the DS FA battalion (e.g., sites, equipment, procedures if other than SOP).
 - b) Describes NBC reconnaissance support of the DS FA battalion.
 - c) Portrays potential enemy use of chemicals against the DS FA battalion.
 - d) Describes employment of smoke and other obscurants.
- 10) Battery commanders participate in DS FA battalion rehearsals. [FM 6-20-1, p. 3-12]
 - a) Describe their missions.
 - b) Demonstrate how they will accomplish their assigned mission.
 - (1) Movement.
 - (2) Positions (primary, alternate, subsequent).
 - (3) Timing of moves, positioning, and execution of fires.
 - (a) Must ensure that movement is integrated with timeline of attack of critical targets.

- (b) Confirm that required quantity and type of ammunition is available in the position required (i.e., FASCAM, smoke).
- 11) Time dependent, the entire operation is thoroughly rehearsed using one of the following techniques: [FM 71-3, pp. 3-23 - 3-29; FM 6-20-1, pp. 3-12 - 3-14]
 - a) Level I: small-scale rehearsals that do not involve mounted or dismounted maneuver. Techniques include:
 - (1) Map: Limited number of participants due to map size, used when time and space constraints are limited.
 - (2) Sand table/terrain model: Key leaders only, used to compensate for lack of sufficient time.
 - (3) Rock/stick drill: Same characteristics as sand-table/terrain models, except that participants replicate their actions or their unit's actions.
 - (4) Radio/telephone: Participants as directed by the DS FA battalion commander, used when time and enemy situations do not allow gathering of personnel; used to test radios and to determine backup systems in the event of communications equipment failure. The technical fire support rehearsal will be conducted in this manner to test all digital devices.
 - b) Level II: Focused rehearsals using selected personnel, usually key leaders, mounted in wheeled or tracked vehicles over similar terrain; technique used is tactical exercise without troops (TEWT), where key leaders participate, conducted on actual mission or similar terrain.
 - c) Level III: Full-scale dress rehearsal involving use of real time, mounted and dismounted maneuver over actual mission or similar terrain.
- 12) The DS FA battalion commander, XO, S3, and other key staff officers conduct rehearsal after action reviews (AARs) to ensure that critical tasks are rehearsed to acceptable levels of competence. [FM 101-5, p. M-15, FM 6-20-1, p. 3-12]
- e. The DS FA battalion commander ensures that each BOS is integrated with other BOS during visits, backbriefs, and rehearsals. [FM 101-5, pp. H-36 - H-42]

- 1) The DS FA battalion commander determines the state of DS FA battalion preparedness through visits and inspections. [Battle Command, Leadership and Decision Making, BCBL, p. 10-15]
 - a) The DS FA battalion commander personally visits and inspects units.
 - (1) Manages his time and prioritizes his visits so that he visits at least those units most critical to the execution of his intent and concentrates on those units and officers that demonstrate leadership weaknesses; assesses unit capabilities; checks/listens to be sure tasks are understood.
 - (2) Questions subordinate leaders down to section level and compares their concepts of the operation with his to ensure that the DS FA battalion plan is understood at all levels.
 - (3) Inspects and spot-checks known weaknesses to ensure that they are corrected.
 - (4) Makes a subjective assessment of cohesion, morale, and esprit.
 - (5) When actions taken are not in accordance with decisions, SOPs, Army standards, and the OPORD, refines plans and preparation efforts to counter weaknesses.
 - (6) Expedites actions, fixes problems, ensures compliance with guidance, and sets/refines standards.
 - (7) Informs DS FA battalion XO and his representatives inspecting preparations of any changes or refinements to the plan which he has directed.
 - b) The DS FA battalion commander extends his command presence by directing members of his staff (DS FA battalion XO, CSM, or one or more DS FA battalion staff members) to perform inspections and visits.
 - c) Inspections and visits are scheduled; units may be informed of times.
 - (1) Inspections and visits do not significantly interfere with, delay, or artificially sequence subordinate units' combat preparations.

- (2) The commander determines and outlines those items and activities he will inspect based on:
 - (a) Experience.
 - (b) In-depth knowledge of the DS FA battalion and its equipment.
 - (c) Assessment of the current status of the units.
 - (d) Items which serve as indicators of maintenance, readiness, or morale trends within the unit (appearance, signs of fatigue).
- 2) The DS FA battalion commander directs adjustments to the DS FA battalion preparations.
- 3) The DS FA battalion commander integrates intelligence requirements with the other BOS.
 - a) The commander and S2 review the intelligence synchronization matrix to ensure that the intelligence system provides answers to intelligence requirements in time to influence the decisions they support.
 - b) The DS FA battalion S2 uses the products of the targeting process to develop specific information requirements (SIR)/specific orders and requests (SOR) that integrate the activities of the collectors with the command's decision points.
 - c) The DS FA battalion commander ensures that decide, detect, deliver and assess methodology is integrated into the brigade commander's tactical decision-making process to ensure that targeting is integrated with all other aspects of the commander's plan.
- 4) The DS FA battalion commander integrates fire support within the fire support system itself and with the other BOS.
 - a) Subordinate unit fire support plans are verified and integrated with the brigade fire support plan.
 - b) The FA support plan is integrated with the brigade FS plan to ensure that the right attack means is delivered on the right target at the right time:

- (1) Shifts in priorities of fires and timing for preplanned and targets of opportunity engagements in each phase of the operation are integrated with the movement plan.
 - (2) Positioning of primary and back-up observers to allow observation on all priority targets and engagement areas (EAs) to provide the trigger, adjustment if necessary, and target effects for BDA.
 - (3) Priority of fires and priority targets for each phase of the mission, including method for prioritizing calls for fire to provide situationally alert fire support coordination.
 - (4) Finalizing artillery target groups and series to integrate massing of fires on the critical target with the brigade commander's plan.
 - (5) Employment concept for special munitions (i.e., FASCAM, smoke, dual purpose improved conventional munitions [DPICM], Copperhead) is completed and can be executed on the right target at the right time without interfering with the ability to provide adequate overall support for the plan.
 - (6) CAS and Army aviation refinements are reviewed for synchronization of SEAD and necessary FSCM to facilitate fires.
 - (7) Control measures and restrictions to facilitate rapid engagement of targets while simultaneously safeguarding friendly forces.
- 5) The DS FA battalion commander integrates CSS with the other BOS.
- a) Verifies that CSS assets are positioned and prepared to provide planned supply, medical, and maintenance support to the DS FA battalion during the mission without interfering with the DS FA battalion delivery of fires.
 - b) Verifies that push packages of emergency resupplies are configured and ready to support continuous delivery of fires.
 - c) Reviews designated MSR and ASRs to ensure that CSS assets can provide timely response without interfering with movement or maneuver of fire support units or brigade elements.

- d) Verifies that medical assets and operations are prepared to support the DS FA battalion and that the evacuation plan is integrated with the movement of units.
 - e) Ensures that vehicles and equipment are being recovered, repaired, and returned to user or delivered to higher maintenance echelons during the preparation phase.
 - f) Verifies that maintenance assets are task organized and are prepared to provide support; unit maintenance collection points (UMCPs) are prepared to displace and provide planned support.
- 6) The DS FA battalion commander integrates command and control with the other BOS.
- a) The DS FA battalion commander reviews the DST, synchronization matrix, and FSEM to ensure that:
 - (1) Plan modifications are integrated.
 - (2) Mission details to achieve the brigade and DS FA battalion commander's intent are adequately reflected.
 - (3) Fire support is integrated and integrated with maneuver.
 - b) Planned command and control measures are reviewed by the DS FA battalion commander, staff, and subordinate leaders to assist in the synchronization of fire and maneuver:
 - (1) Maneuver graphics and control measures (e.g., phase lines, objectives, routes, check and coordination points) to integrate movement.
 - (2) Signals and quick execution code words to facilitate rapid execution of the plan.
 - (3) DST to ensure that critical HPTs and targeting adequately support critical decision points, if required.
 - (4) Synchronization matrix to integrate all aspects of the brigade commander's plan.
 - (5) FSEM and FSCM to integrate the effective but safe delivery of fires.
 - c) CPs and staff are prepared to support the mission.

- (1) Ready to receive, process, and disseminate information.
 - (2) Move and position to support the DS FA battalion commander during the battle.
 - (3) Coordinate and integrate combat multipliers.
 - (4) Exchange information with brigade and adjacent units.
- f. The DS FA battalion concept is revised based on results of rehearsals, visits, and inspections.
- 1) The DS FA battalion commander ensures that FASP/FRAGO and all critical associated documents are updated and reflect his most current guidance (see task 3 for the refinement of plans and orders).
 - a) The DS FA battalion commander modifies guidance and orders based on continued preparation activities, rehearsals, and other METT-T information.
 - b) The DS FA battalion staff refines original FASP and all associated documents based on continued preparation activities, rehearsals, and other METT-T information.
 - c) The DS FA battalion staff refines FRAGO and all associated documents based on continued preparation activities, rehearsals, and other METT-T information.
 - 2) The DS FA battalion staff distributes refined/updated FASP, FRAGO, and associated documents to the subordinate units.

Outcome 6

Subordinate leaders demonstrate an understanding of the critical elements of their own mission and mission essential tasks, the DS FA Bn mission, and the Bn Cdr's intent.

Task Elements

4. **The direct support field artillery battalion commander directs changes to the operation or plan.** [TRADOC Pam 11-9, Chap 7 and App D]
 - h. The DS FA battalion commander takes actions to ensure that subordinate leaders have a clear understanding of his intent and concept. [FM 101-5, pp. 4-59/60]
 - 2) The DS FA battalion commander receives a confirmation briefing from subordinate leaders.

5. **The direct support field artillery battalion commander directs and leads subordinate forces.** [TRADOC Pam 11-9, Chap 7 and App D]

- b. The DS FA battalion commander and staff coordinate and integrate tactical operations through backbriefs. [FM 101-5, pp. 4-59, 4-60]
 - 1) The DS FA battalion commander conducts backbriefs with the DS FA battalion staff and subordinate commanders.
 - a) During and after the DS FA battalion commander's inspections and visits.
 - b) As directed by the DS FA battalion commander.
 - 2) During backbriefs, the DS FA battalion commander verifies that subordinates understand concept of operations.
 - 3) During backbriefs the DS FA battalion commander and subordinate commanders are responsible for:
 - a) Describing in detail how their schemes of maneuver and fires will be conducted.
 - b) Describing how their concept of the operation supports the DS FA battalion commander's intent and contributes to the DS FA battalion mission.
 - c) Describing: the level of preparation achieved; preparation activities still not completed; and actions to be taken in order to adhere to the mission timelines.
- c. The DS FA battalion commander and subordinates plan and prepare for rehearsals. [FM 101-5, App M; FM 71-3, pp. 3-23 - 3-29; FM 6-20-1, pp. 3-12 - 3-14]
 - 2) DS FA battalion and reinforcing unit prepare for rehearsal. [FM 6-20-1, p. 3-12]
 - a) DS FA battalion, firing battery, and platoon FDCs and FSOs to the company level develop at least a tentative plan prior to their participation in a DS FA battalion rehearsal in order to allow effective feedback on the DS FA battalion plan.
 - b) Subordinate FDCs and FSEs conduct their own technical rehearsals and prepare vehicles, equipment, and soldiers prior to DS FA battalion rehearsals.

- c) The DS FA battalion O&I elements pay particular attention to displacements. The DS FA battalion FDC issues fire orders and passes messages to observers.
 - d) If there is a mutual support unit, the two FDCs exercise transfer of control.
- d. The DS FA battalion conducts rehearsals.
 - 1) The DS FA battalion conducts multiple rehearsals if time is available, to include contingency plans. [FM 101-5, p. M-15]
 - a) Combined arms maneuver rehearsal.
 - b) CSS/logistics rehearsal.
 - c) Fire support rehearsals.
 - (1) Brigade FS rehearsal.
 - (2) DS FA battalion technical rehearsal.
 - 2) The DS FA battalion conducts realistic and thorough rehearsals; replicating the enemy accurately and: [FM 6-20-1, pp. 3-12 - 3-14]
 - a) A slow walk-through of the mission is performed, with staff and subordinate leaders explaining their actions at every step to ensure understanding; then, with minimal guidance and at combat speed.
 - b) Integration and coordination of the BOS are accomplished by rehearsing each element's movement and positioning to ensure that all elements can be in place at designated times and that elements' activities do not interfere with other units' activities.
 - c) Rehearsals are conducted from the point of threat identification up to the point where the DS FA battalion is able to complete the mission and achieve the destruction of the enemy.
 - d) All DS FA battalion systems (vehicles, troops, combat multipliers) participate if time is available; representative portions of DS FA battalion systems participate if time or space is not available.
 - e) During the rehearsal, participants execute exactly as they would in combat.
 - 3) The DS FA battalion commander controls and participates in the DS FA battalion rehearsal. [FM 6-20-1, pp. 3-12 - 3-14]

- a) Ensures that rehearsal meets his goals.
- b) Briefs participants (or gives guidance to the S3 to brief) prior to the rehearsal.
 - (1) Introduces each participant with a brief description of his duties and roles for the mission.
 - (2) Provides an overview:
 - (a) Missions and tasks to be rehearsed.
 - (b) Sequence of activities rehearsed.
 - (c) Rehearsal timelines (e.g., time to rehearse each event/phase of the mission).
 - (d) Description of rehearsal site.
 - (3) The DS FA battalion commander verifies that subordinate commanders understand their mission. [FM 101-5, p. M-15]
- c) Establishes the standards, outcomes, and goals to be achieved.
 - (1) Battery commanders, staff, FDCs and FSOs at all levels, and leaders fully understand their responsibilities within the parameters of the DS FA battalion commander's intent.
 - (2) Vulnerabilities in the plan are identified, and the means to mitigate them are determined.
 - (3) Checks are made to determine whether key aspects of the plan are feasible (e.g., observers confirm that they can see their targets; FDCs confirm that they have ballistic solutions to their targets).
- d) Exercises the decision-making process he expects to be faced with during the mission:
 - (1) Identifies times or events during the mission which will require him to make decisions.
 - (2) Observes how his decisions are implemented by DS FA battalion units and the staff.

- (3) Identifies the key decision points which are most likely to produce the outcomes which supports his intent and desired endstate.
 - (4) Utilizes his decision-support aids (e.g., DST, synchronization matrix, FSEM).
- e) Tracks the effect of DS FA battalion actions to achieve the desired endstate (with DS FA battalion S3 assistance).
- 4) The DS FA battalion S3 participates in DS FA battalion rehearsals. [FM 6-20-1, p. 3-12]
 - a) Describes overall operation.
 - b) Ensures that DS FA battalion fires are integrated in terms of timing to support brigade movement and maneuver.
 - c) Describes the positioning and movement of the DS FA battalion commander during the mission.
 - d) Describes the positioning and movement of DS FA battalion CPs during the mission.
 - e) Assists the DS FA battalion commander in tracking the effect of DS FA battalion actions to achieve the desired endstate.
- 5) The DS FA battalion S2 participates in DS FA battalion rehearsals. [FM 6-20-1, p. 3-12]
 - a) Portrays enemy actions and responses.
 - (1) Replicates all plausible and possible events and activities.
 - (2) Ensures that enemy actions are properly depicted to the DS FA battalion commander, subordinate commanders and staff.
 - (3) Portrays actions of HPT and other activities at NAIs and TAIs.
 - (4) Briefs threats to batteries by phase. [FN-NTC]
 - b) Provides updated enemy and terrain information.
- 6) DS FA battalion FDO participates in the rehearsal. [FM 6-20-1, p. 3-12]

- a) Supervises tactical and technical fire direction.
 - b) Ensures that all FDCs compute fire commands and acknowledge fire support coordinating measures.
 - c) Develops and supervises input of appropriate parameters into fire direction computers.
 - d) Confirms that FDCs can compute ballistic solutions to targets.
- 7) The DS FA battalion S4 (representing CSS staff) participates in rehearsals. [FM 6-20-1, p. 3-12]
- a) Describes CSS support of the DS FA battalion.
 - b) Portrays positioning and movement of CSS assets.
- 8) FSO, FISTs, and COLTs. [FM 6-20-1, p. 3-12]
- a) Fire assigned targets.
 - b) Ensure that assigned missions, especially high-priority ones, like FPFs, are loaded into the buffers of forward entry devices (FED).
 - c) Point out and describe control measures (e.g., trigger lines and execution criteria), restrictions, and communications (primary and alternate) between observers and fire support elements which are practiced.
 - d) Ensure that company/team fire support plans comply with the commander's guidance.
 - e) Describe observer and back-up observer positioning, and responsibilities.
 - f) Ensure that indirect fires "triggers":
 - (1) Are understood and demonstrated by observers.
 - (2) Can be executed by the fire support system (e.g., FA, mortars, CAS) based on ranges and timing.
 - (3) Are integrated with ground maneuver.
- 9) The DS FA battalion CMLO participates in DS FA battalion rehearsals. [FM 6-20-1, p. 3-12]

Tasks Organized by Outcomes for DS FA Bn BF 19

- a) Describes NBC decontamination support of the DS FA battalion (e.g., sites, equipment, procedures if other than SOP).
 - b) Describes NBC reconnaissance support of the DS FA battalion.
 - c) Portrays potential enemy use of chemicals against the DS FA battalion.
 - d) Describes employment of smoke and other obscurants.
- 10) Battery commanders participate in DS FA battalion rehearsals. [FM 6-20-1, p. 3-12]
- a) Describe their missions.
 - b) Demonstrate how they will accomplish their assigned mission.
 - (1) Movement.
 - (2) Positions (primary, alternate, subsequent).
 - (3) Timing of moves, positioning, and execution of fires.
 - (a) Must ensure that movement is integrated with timeline of attack of critical targets.
 - (b) Confirm that required quantity and type of ammunition is available in the position required (i.e., FASCAM, smoke).
- 11) Time dependent, the entire operation is thoroughly rehearsed using one of the following techniques: [FM 71-3, pp. 3-23 - 3-29; FM 6-20-1, pp. 3-12 - 3-14]
- a) Level I: small-scale rehearsals that do not involve mounted or dismounted maneuver. Techniques include:
 - (1) Map: Limited number of participants due to map size, used when time and space constraints are limited.
 - (2) Sand table/terrain model: Key leaders only, used to compensate for lack of sufficient time.
 - (3) Rock/stick drill: Same characteristics as sand-table/terrain models, except that participants replicate their actions or their unit's actions.

- (4) Radio/telephone: Participants as directed by the DS FA battalion commander, used when time and enemy situations do not allow gathering of personnel; used to test radios and to determine backup systems in the event of communications equipment failure. The technical fire support rehearsal will be conducted in this manner to test all digital devices.
 - b) Level II: Focused rehearsals using selected personnel, usually key leaders, mounted in wheeled or tracked vehicles over similar terrain; technique used is tactical exercise without troops (TEWT), where key leaders participate, conducted on actual mission or similar terrain.
 - c) Level III: Full-scale dress rehearsal involving use of real time, mounted and dismounted maneuver over actual mission or similar terrain.
- 12) The DS FA battalion commander, XO, S3, and other key staff officers conduct rehearsal after action reviews (AARs) to ensure that critical tasks are rehearsed to acceptable levels of competence. [FM 101-5, p. M-15, FM 6-20-1, p. 3-12]
- e. The DS FA battalion commander ensures that each BOS is integrated with other BOS during visits, backbriefs, and rehearsals. [FM 101-5, pp. H-36 - H-42]
 - 1) The DS FA battalion commander determines the state of DS FA battalion preparedness through visits and inspections. [Battle Command, Leadership and Decision Making, BCBL, p. 10-15]
 - a) The DS FA battalion commander personally visits and inspects units.
 - (1) Manages his time and prioritizes his visits so that he visits at least those units most critical to the execution of his intent and concentrates on those units and officers that demonstrate leadership weaknesses; assesses unit capabilities; checks/listens to be sure tasks are understood.
 - (2) Questions subordinate leaders down to section level and compares their concepts of the operation with his to ensure that the DS FA battalion plan is understood at all levels.
 - b) The DS FA battalion commander extends his command presence by directing members of his staff (DS FA battalion XO, CSM, or

one or more DS FA battalion staff members) to perform inspections and visits.

- c) Inspections and visits are scheduled; units may be informed of times.
 - (1) Inspections and visits do not significantly interfere with, delay, or artificially sequence subordinate units' combat preparations.
 - (2) The commander determines and outlines those items and activities he will inspect based on:
 - (a) Experience.
 - (b) In-depth knowledge of the DS FA battalion and its equipment.
 - (c) Assessment of the current status of the units.
 - (d) Items which serve as indicators of maintenance, readiness, or morale trends within the unit (appearance, signs of fatigue).

Outcome 7

Soldiers and units are disciplined and motivated to accomplish the mission.

Task Elements

- 5. **The direct support field artillery battalion commander directs and leads subordinate forces.** [TRADOC Pam 11-9, Chap 7 and App D]
 - a. The DS FA battalion commander exercises leadership and maintains unit cohesion and discipline. [Battle Command, Leadership and Decision Making, BCBL, p. 11-15, FM 22-100, Chap 4, 5, and 6]
 - 1) The DS FA battalion commander checks and ensures that orders are executed; reinforces discipline by demanding compliance to standards and his guidance.
 - 2) The DS FA battalion commander observes subordinates:
 - a) For indicators of shortfalls in performance or manner of performance, and takes corrective action as necessary.

- b) For noteworthy performance that he can praise and recognize in other ways.
- 3) The DS FA battalion commander displays a calm presence to subordinates while clearly delineating guidance and providing precise, simple orders, and instructions.
- 4) The DS FA battalion commander maintains a moral presence through ethical decision making and personal example.
- 5) The DS FA battalion commander monitors subordinates and himself for degradation of mental and physical capability. [Battle Command, Leadership and Decision Making, BCBL, pp. 27, 28]
 - a) DS FA battalion commander monitors his own physical and mental state and gets rest.
 - b) DS FA battalion XO monitors the DS FA battalion commander's and staff members' physical and mental state and recommends rest periods.
 - c) DS FA battalion commander ensures that subordinate commanders and staff are rested and prepared for battle.
- 6) The DS FA battalion commander continuously assesses risks to mission accomplishment and safety hazards during all phases of the operation.
- e. The DS FA battalion commander ensures that each BOS is integrated with other BOS during visits, backbriefs, and rehearsals. [FM 101-5, pp. H-36 - H-42]
 - 1) The DS FA battalion commander determines the state of DS FA battalion preparedness through visits and inspections. [Battle Command, Leadership and Decision Making, BCBL, p. 10-15]
 - a) The DS FA battalion commander personally visits and inspects units.
 - (4) Makes a subjective assessment of cohesion, morale, and esprit.
 - (7) Informs DS FA battalion XO and his representatives inspecting preparations of any changes or refinements to the plan which he has directed.
 - b) The DS FA battalion commander extends his command presence by directing members of his staff (DS FA battalion XO, CSM, or

one or more DS FA battalion staff members) to perform inspections and visits.

LESSONS LEARNED

This component identifies the lessons learned extracted from the U.S. Army Center for Army Lessons Learned (CALL) publications relevant to performing this battlefield function (BF). The lessons learned are organized and listed by the appropriate task in the BF task list, Section 7. Where appropriate to address the absence of a task in an Army Training and Evaluation Program - Mission Training Plan (ARTEP-MTP), the lessons learned have been structured as tasks and are included in the detailed task list as subtasks. The purpose of the lessons learned component is to provide the user with the most recent tactics, techniques, and procedures (TTP) associated with the performance of the tasks in this BF.

1. **The direct support field artillery battalion command posts and staff manage and maintain command, control, and communications.**

LL- Opinions among professionals differ over where to locate the FSCOORD on the battlefield. Each opinion has merit, but when reduced to its simplest terms, the FSCOORD must be positioned where he can best execute the fire support plan. The situation must determine where the FSCOORD is positioned. [CALL Newsletter 90-1, Fire Support for the Maneuver Commander]

LL- During the initial planning it is essential that the FSCOORD be located where he can best determine the needs of the maneuver force as he, the maneuver commander, and his staff plan the battle together. Doctrine dictates that the maneuver commander include the FSCOORD in every step of his decision-making process. The FSCOORD begins his own planning when the maneuver commander announces the mission to the staff.

In the preparation phase the FSCOORD must be able to ensure that the fire support elements properly understand and are prepared to support the maneuver force. During the execution phase, the FSCOORD must position himself to respond to immediately influence fires in support of the operation. During the execution phase, field artillery units have found that when the operations officer directs the action in the operations center and the executive officer manages the administrative and logistics operations, the FSCOORD can concentrate on fighting the immediate battle and anticipating the changes that result from the dynamics of battle. [CALL Newsletter 90-1, Fire Support for the Maneuver Commander]

LL - **SIGNAL OPERATIONS AND COMMUNICATIONS**

Brigade commanders, staffs, and battle captains must fully understand signal support systems communications architecture and capabilities to effectively use signal operations as a combat multiplier. To orchestrate and synchronize command and control efforts, brigade and battalion commanders and their staffs must be educated on communications, command, and control architecture and capabilities. This will enhance the brigade task force's ability to effect staff coordination and

planning, execution, and information management. This education should emphasize all types of communications systems available to the brigade task force, how they are doctrinally employed, and how to best integrate them into the brigade task force's information management system. According to FM 100-5, signal operations must provide "reliable signal support systems to enable the commander to conduct operations at varying operational tempos." Further, "Signal planning increases the commander's options by providing the requisite signal support systems to pass critical information at decisive times, thus leveraging and exploiting tactical success and facilitating future operations." This creates an implied task for commanders and staffs at all levels to understand and to be involved in planning and synchronizing the communications architecture required to ensure mission success. Signal operations in support of Joint/Combined arms integration and command and control is becoming increasingly complex. Signal officers have the critical task to orchestrate this complex communications architecture and present it in understandable terms to commanders and staffs. They have the responsibility to know how to use individual and unit communications equipment and understand the communications architecture to effectively use it as a combat multiplier. [CALL CTC Bulletin No. 94-1, "Lessons and Information," p. 7]

LL - We seldom practice deception or OPSEC.

TECHNIQUE: Make deception a "priority," i.e., provide *command emphasis*, not integrated or synchronized across the Battlefield Operating System (BOS) spectrum.

TECHNIQUES:

- a. Start building deception and OPSEC with mission analysis.
- b. Ask the following questions:
 - 1) What does the enemy *expect* us to do?
 - 2) What do we want the enemy *to believe* we are doing?
 - 3) What can we do to *convince the enemy* to believe our deception plan?
 - 4) Can we use an alternate course of action as our deception plan?
 - 5) How can our reconnaissance/counter-reconnaissance efforts assist the deception plan?
- c. Build dummy positions to lure enemy SPF teams in and then destroy them.
- d. Resource the deception force to accomplish its mission.
- e. Reflag units to hide unit boundaries. Send false radio traffic; use smoke, engineers, mockups, PSYOP to support the deception. [CALL CTC Bulletin No. 95-4, Chap 5]

2. Battalion command posts acquire, evaluate, and communicate information and maintain status.

LL- Doctrinal relationships between the Army, Air Force, and Close Air Support (CAS) need to be reviewed. Doctrinally, the S3 (Air) submits preplanned CAS requests after fire support officer (FSO)/air liaison officer (ALO) coordination. In successful units, FSOs submit the requests to allow the S3 (Air) to focus on strategic and tactical air movement and aerial resupply. Maneuver commanders need to force Tactical Air Control Party (TACP) integration into the FSC and make the ALO subordinate to the FSO for matters of fire support coordination. Some new ALOs confuse issues of commander-special staff officer relationships and issues of tactical operations and fire support coordination. Finally, units must train and authorize 13Fs to conduct CAS terminal strike control. TACPs often cannot get from the tactical operations center (TOC) to the target area to control the strike. Currently, soldiers only control CAS under wartime emergency conditions which severely degrades their preparedness to control CAS strikes when necessary. [Combat Training Centers (CTCs) Bulletin No. 93-4, p. 11]

LL - BATTLE TRACKING

The optimum TOC is one that affords the TF commander with the means to make a tactical decision without asking a single question.

LESSONS:

- Minimum critical information (MCI) that should be tracked in the battalion TOC (both friendly AND enemy forces) includes: relative combat power, unit locations, obstacle overlay, execution matrix, task organization, and personnel status.
- Information boards need to be updated (at a minimum) every four hours.
- Have a designated individual track MCI.
- Conduct formal shift change briefs in the TOC. This process forces information updates and sharing.
- Logs and journals (DA 1594s) are excellent tools for details and historical purposes. However, consider adding a "significant activities" board in the TOC to share information. This should display significant activities of all the battlefield operating systems in the TOC. [CALL, "News from the Front"]

LL- Most units arrive at the JRTC with excellent SOPs defining battle-tracking procedures and clearance of fires. These SOPs adequately cover procedures to update locations and activity on a regular basis. Trends indicate that subordinate elements do not report as required, and, when reports are received, the information is not disseminated to other members of the TOC. The brigade fire support element must include the ANGLICO's assets in the reporting and battle-tracking process. With responsible battle tracking, responsiveness of fires increases and provides the brigade with an increased ability to prepare for support in future

operations. Commanders must succinctly define clearance of fires procedures and battle drills throughout the brigade. [Combat Training Centers (CTCs) Bulletin No. 94-1]

- LL- Fire support planning and preparation begins when the maneuver force commander and orders group or battle staff, to include the Fire Support Coordinator (FSCoord) and the Fire Support Officer (FSO), receive the mission. The commander and staff closely interact throughout all phases of the operation. As the orders group focuses on the development of the command estimate, the FSCoord and his staff begin the parallel development of the fire support plan.

The preparation phase gives the commander and staff the opportunity to check and verify the plans against the commander's guidance and to correct phase. [CALL Newsletter Fire Support for the Maneuver Commander 90-1]

- LL - The commander's role in information management is not quite so doctrinally clear as is his role in staff training and building staff cohesion. Chapter 6, Combat Information Management, in FM 101-5 (DRAFT), *Command and Control for Commanders and Staff*, states that "*information management is the first requirement for all decision making. A decision maker must continually ask, What information do I need? Where do I get it? Is it accurate? Can I trust it? What does it really mean? Is it still true now?*" The chapter also states that commanders and staffs who understand the utility and volume of available information can evade information overload by emplacing effective systems to swiftly pass forward necessary information.

It defines the commander's role as that of charging the XO with the combat information management function. The XO then fuses available C² tools by outlining and monitoring the staff's duties, functions, and responsibilities in generating and processing information and flow through the C² system. The XO must collect, analyze, and accurately present Commander's Critical Information Requirements (CCIRs) to the commander on a timely basis. In practice, observations show that commanders who are only passive or reactive consumers of the information management process are not able to identify the information they will need. Not asking the correct questions results in unfocused and unproductive staffs. Moreover, commanders are not directing their staffs on actions once information is received. The commander's role in information management is easy to explain but difficult to implement. If the commander neglects this requirement, the staff attempts to track all, and tracks nothing definitively. Frequently, the commander receives too much irrelevant information or no information of substance. [CALL Bulletin 95-4, "News From the Front,"]

3. **The battalion commander visualizes the battlefield.**

LL - TOPIC: C2 Effectiveness under Stress

DISCUSSION: There are many factors that can create stress in combat operations: fatigue, anxiety, time, intense heat, battlefield uncertainty, etc. Reactions to stress are varied, but there are clear indications, from combat experience and less stressful research and training environments, that soldier performance in command and control C2 operations can suffer.

LESSON(S) LEARNED: Do not underestimate your opponent. At the outbreak of conflicts, there is a common tendency to underestimate the opponent's military abilities. At the beginning of the U.S. Civil War, both sides thought they could win quickly and easily. In many training exercises, U.S. planners seem to assume that because the opponent is culturally different, not a world power, or technologically inferior, he will be easy to defeat. After the enemy is more successful than anticipated, then it is common to overestimate his capabilities. Maintain a realistic, balanced perspective on enemy capabilities. Plan ahead. The reality of violent combat can cause commanders and staffs to concentrate on just the immediate battle. This is especially true if operations do not go exactly as planned. Yet most of our potential adversaries fight in echelons, and, in a fast-paced battle, we must be preparing to meet the second echelon while fighting the first. Eliminate future surprises by planning for the next battle during the current fight. See the entire battlefield. Under stress it is more comfortable to narrow your focus to your immediate control and within your own boundaries. What is happening on your flanks and rear is critical to accomplishing your mission. The support you might get from the flanks and from higher command could be critical to accomplishing your mission. Commanders and staffs must consider the bigger picture when planning and conducting their operations. Decide early, then plan in detail. After the concept of the operation has been decided, there is still much detailed planning to be done. Do not let the search for a perfect concept consume all your time and effort or use up time your subordinates need. Numerous CTC exercises have shown that a good workable concept, planned in detail, rehearsed, and well executed, is a winning strategy. Simple concepts, thoroughly planned! Making complex, tricky-to-execute plans is asking for trouble. Keep plans simple, but plan them in detail. Achieving synchronization depends on working out the time, space, and force details. Whenever possible, determine the criteria for key decisions in advance. For example, rather than simply ordering a unit to "withdraw before becoming decisively engaged," pre-establish the criteria for making the decision to withdraw. [CALL Newsletter No. 90-8, Special Edition, "Winning in the Desert, Tactics, Techniques and Procedures for Maneuver Commanders," pp. 23-24]

LL- The FSCOORD is the maneuver commander's expert on the employment of all parts of the fire support system. The FSCOORD must be technically proficient with the fire support systems and doctrine. He must also know and understand the doctrine, tactics, and techniques of all of the other operating systems, especially

the maneuver system. [CALL Newsletter 90-1, Fire Support for the Maneuver Commander]

4. The battalion commander directs changes to the operation or plan.

- LL- The maneuver commander with the FSCOORD develops the attack guidance for use in planning supporting fires. The attack guidance issued by the maneuver commander to the FSCOORD and to the fire support units and observers must define how, when, and with what restrictions the maneuver commander wants to attack different types of targets and in what priority. [CALL Newsletter 90-1, Fire Support for the Maneuver Commander, p. 6]
- LL- The attack guidance is used to develop the commander criteria that is input into the TACFIRE system and will allow it to automatically perform a number of actions upon receipt of a fire mission. [CALL Newsletter Fire Support for the Maneuver Commander 90-1, p. 6]
- LL- The most effective method of ensuring that the commander guidance is understood is for the FSCOORD to brief back his understanding of the commander's fire support guidance to the maneuver commander. This ensures that the FSCOORD understands how the maneuver commander sees how fire support will be used in the operation. [CALL Newsletter 90-1, Fire Support for the Maneuver Commander]
- LL- Development of a successful fire support plan is dependent on the maneuver commander's guidance. The FSO and the FSCOORD must understand the intent of the commander's concept of the operation. If the commander does not clearly define the role of fire support in the concept of the operation, the FSO and FSCOORD must work with the commander until there is no question or doubt as to the role and employment of all fire support assets. [CALL Newsletter 90-1, Fire Support for the Maneuver Commander]
- LL - Staff integration in planning, preparation, and execution of missions continues to be a challenge. Each staff member must actively participate in mission analysis, COA development, analysis and comparison, war-gaming, and orders production. Each staff officer and LNO must properly advise the staff to ensure the proper employment of his assets as well as the focusing of combat power. Units should establish planning and TOC operational procedures that promote staff cross-talk. Information sharing must occur during the execution phase to ensure accurate battle tracking. Staff members need to work together to analyze information and provide updated estimates to the staff and commander to support the current battle and plan for future operations. Every staff member should continuously assist the

S2 with the intelligence preparation of the battlefield (IPB). [CALL CTC Bulletin No. 93-4, p. 9]

LL - MILITARY DECISION-MAKING PROCESS

OBSERVATION: Commanders and staffs must optimize available time by providing subordinates with information to begin planning and preparing for the mission.

DISCUSSION: During the MDMP the commander and staff receive and develop information that is useful to subordinates. To aid subordinates in planning, the commander and staff provide information as frequently as possible, maximizing the subordinates' planning and preparation time. The commander and staff send warning orders at key times during the MDMP to provide subordinates with planning information. Send the first warning order once the mission is received from the higher unit. Provide subordinates with the type, time, and location of operation. This allows subordinates to begin planning and managing available time, prepare necessary equipment, and begin conducting rehearsals and battle drills. Send the second warning order after the commander and staff have analyzed the mission. Provide as much new information as possible (restated mission and tasks); include any specific instructions that subordinates need to aid them in organizing their planning and preparation time. Send the third warning order after the commander has decided the course of action and has developed a concept of operation. With a course of action selected, tell subordinates the task organization and their specified tasks. By providing the task organization, units can begin cross-attaching and coordinating changes in support. Provide subordinates with copies of draft operational graphics and a brief explanation of the concept of operation if time is available. This allows them to begin parallel planning while the battalion or brigade operations order is developed. Parallel planning is a technique similar to multiple warning orders. Parallel planning allows subordinate commanders and staffs to plan and prepare while the higher staff produces their plan. This would prevent planning sequentially, with the subordinate commander receiving the higher commander's order before beginning to plan. By parallel planning, subordinate units have more available time because they receive information earlier than they would during sequential planning. During parallel planning, the higher commander provides subordinate commanders with his concept of the operation and details of the plan as soon as they are developed. This is done best by the commander meeting and quickly briefing his subordinates. Help subordinate commanders plan quickly by giving them a detailed warning order prior to the operations order briefing. Parallel planning conserves time for all echelons, but demands close coordination between commanders and staffs. Even after the commander has met with subordinate commanders, the brigade and battalion must maintain close contact during planning. If not, the brigade may change the concept, and the battalion will produce an erroneous order. [CALL Newsletter No. 93-3, "The Battalion and Brigade Staff," pp. 1-2]

LL - TIME MANAGEMENT

"You can ask me for anything you like, except time." NAPOLEON

OBSERVATION: Commanders and staffs must analyze and plan the use of available time in detail and not waste planning and preparation time.

DISCUSSION: A significant problem commanders and staffs face during the MDMP is time management. Though time is very valuable, it is often wasted by poor management, leaving little time for effective preparation. To have time to accomplish all the tasks during preparation, commanders and staffs must organize, plan, and manage their available time. Identified as part of the commander's planning guidance, the analysis of time begins as the mission is received. Once the commander receives his mission, he begins a METT-T analysis, including an analysis of time. Problems begin when the commander's, or commander's and staff's, analysis consists only of determining their planning time (one-third available time). This is only a partial analysis and does not enable the commander to determine how much time he has to conduct each step of the MDMP or prepare for mission execution. Using the "one-third or one-fifth" rules to manage time only serves to determine the impact on subordinate commanders' time, which is necessary, because only the commander can preserve subordinate commanders' time. A technique to efficiently analyze and manage time is to develop a planning and preparation timeline which becomes part of the time plan. The timeline identifies the time for planning and preparation tasks, beginning when the unit receives the mission and ending when the unit executes the mission. During planning, the commander and staff develop and refine the timeline by listing the tasks they will conduct or must track.

By developing the timeline, the commander has an appreciation of the amount of time available for him and his subordinate commanders. The timeline shows the commander and staff using 10½ hours (from mission receipt to end of order plus brief back and rehearsal time) of the available 37½ hours, providing the majority of available time to subordinates for planning and preparation. Beginning with receipt of the mission, the staff develops an initial timeline, identifying on a chart the times for known events using the reverse planning sequence. At this point, all that can be listed is mission receipt time, mission execution time, the one-third time point (planning time), and light data. The XO continues to develop the timeline by identifying the estimated time the staff will assemble to prepare their situation updates, analyze the mission, and brief the commander. To develop the timeline further, the commander and staff need to know how long it takes to conduct each planning task. This information is obtained only by training on the MDMP. The commander determines the amount of time the staff will spend on course of action analysis, war-gaming, and the time of the decision brief. These events are added to the timeline so the staff can plan their own time while developing their estimates. The commander and staff identify tasks to be accomplished during preparation, while they develop the plan. These tasks are added to the timeline with the responsible person or organization. The TOC then tracks the status of the task for the commander. By adding preparation tasks to the timeline, the commander and staff can synchronize the preparation effort. [CALL Newsletter 93-3, "The Battalion and Brigade Staff," pp. 9-11]

LL - PREPARE PLAN/ORDER/FRAGO

OBSERVATION: Commanders and staffs must be organized and prepared to produce operations orders quickly.

DISCUSSION: Through preparation and organization, commanders and staffs can significantly decrease the time required to prepare operations orders. This begins during training and the development of standing operating procedures on how the staff produces an order. When the commander provides his planning guidance, he specifies the type of order he wants issued. He decides by considering the amount of time available and the capabilities of the staff. Based on the decision, the staff implements the SOP for that type of order.

PREFORMATTED ORDERS

If the commander decides producing a written order is necessary, the staff speeds its production by using a preformatted order. The preformatted order is based on the five-paragraph operations order, but is designed for the way the battalion/brigade presents its order. For example, the unit may add matrices (execution, synchronization, fire support, logistical support, or medical support) to augment each paragraph and better explain portions of its plan. With the basic format prepared, the staff fills in the blanks to complete the order.

ORGANIZING REPRODUCTION

The organization of reproduction and the unit's reproduction process can further speed the MDMP. If a written or matrix order is produced, requiring the staff to complete separate portions, then centralize the collection of the staff's completed portions. Designate a member of the staff to collect, organize, review quality, and present all completed portions of the order to the S3. The order is then given to the commander to review and approve. Once approved, the completed order is reproduced. Organizing production ensures that a complete order is reproduced as quickly as possible. The actual reproduction also needs to be centralized. The operations sergeant identifies someone to be responsible for reproduction and provides him with a work area. Select someone other than the person responsible for compiling the order, because the reproduction NCO will often have to work simultaneously with the person compiling the order while sections of the order are being published. Often the reproduction NCO receives the order from the person collecting the order, who may give it to him in sections rather than wait for the order to be completed before reproduction. Whether he receives the order together or in sections, he reproduces and collates the entire order before it is disseminated. Centralizing order reproduction under the control of one person will initially require a great deal of work, but it ensures that sections of the order are not lost. When selecting a location for reproduction, consider the equipment necessary and the amount of distraction it will cause the staff. Place the reproduction area outside of the TOC so that the staff can continue to coordinate and the TOC can operate without distraction. Using a mimeograph machine or photocopier within the TOC will take up space and distract the staff from its preparations. Place the

reproduction area in a tent or a built-up truck or trailer (in heavy units) so it can operate at night with interior light. This will also provide enough room for the person reproducing the order. Although moving the reproduction area away from the TOC requires extra equipment, it benefits the staff in its effort to prepare for the mission. [CALL Newsletter 93-3, "The Battalion and Brigade Staff," pp. 24-25]

LL - APPROVE PLAN/ORDER/FRAGO

OBSERVATION: Commanders must approve the order after changes have been made by the staff.

DISCUSSION: A common problem for commanders and staffs is that the commander does not review and approve the operations order after it has been prepared. Additionally, commanders realize portions of the order do not meet with their approval when they hear it during the orders brief. They then attempt to correct the order during the briefing, which confuses subordinate commanders and wastes time. This problem is easily solved by the commander providing clear, detailed planning guidance and remaining close to the staff during planning. The commander who is involved with planning from the beginning will not be surprised by the order during the briefing. The solution for the commander who cannot remain close to the staff is to allocate time to approve the order. The commander must review the order with the S-3 and have the staff available to clarify details prior to the order being produced (or if that is not possible, prior to the order briefing). By reviewing and then approving the order, the commander can be certain that his intent is clearly communicated.

LESSONS: Commander: Provide clear and detailed planning guidance, and remain close to the staff during the MDMP. Commander: Allocate time to review and approve the order before it is reproduced and briefed. [CALL Newsletter 93-3, "The Battalion and Brigade Staff," pp. 27-28]

LL - ISSUE PLAN/ORDER/FRAGO

OBSERVATION: Commanders and staffs should not take excessive time briefing operations orders.

DISCUSSION: The order briefing is an event that, if not practiced and organized, takes an exorbitant amount of time. The commander and staff can make the briefing quick and clear by reducing distractions, sequencing the briefers, and using graphic aids. The commander selects the location of the operations order brief and can reduce distractions by his decision. However, his practical options are to brief at a vantage point or at the tactical operations center (TOC). When possible, the commander presents the order at a vantage point. This helps subordinates understand the order by decreasing distractions and by viewing the terrain as the operation is explained to them. If a vantage point is selected, use the terrain to your advantage by first arranging maps and overlays so they don't obstruct the audience's

view of the area of operation. Second, begin the order brief by orienting everyone to key terrain features. And third, identify a key piece of terrain when it is mentioned during the order briefing, both on the map and in the area of operation. If the commander decides to give the briefing in the TOC, prepare the briefing area to reduce distractions. Clear the TOC to provide room for the staff to brief and to fit all attending subordinates. In a heavy unit, ensure that all vehicle ramps are up and that radio operators use head sets to reduce radio volume. Shut down vehicles and generators or sandbag generators to silence them as much as possible. All of these precautions will allow the commander and staff to give the order with limited noise. To speed and better explain the order, organize the staff in a sequence to follow the order format. The commander determines whether to issue the written order before or after the briefing because there are advantages and disadvantages to both methods. If provided before the order, a subordinate commander can give it to an assistant or LNO to return to the company or TOC. The staff can then begin its preparations. However, the written order can also become a distraction when subordinates attempt to read it during the briefing.

The commander controls the audience, limiting questions and stopping questions that will distract from the briefing. Although the commander gives his intent during the briefing, he reviews it to provide detailed guidance to each subordinate. The commander expresses his intent by repeating specific tasks and purposes for subordinates and emphasizing the results. The commander then ties each task together in sequence to explain how he expects to accomplish the mission. By addressing each subordinate, the commander ensures that each one understands how his mission relates to the commander's intent. Also, reviewing commander's intent at the end of the briefing will stimulate questions. "Whenever possible, subordinate leaders should receive their orders face to face from their commanders on the ground chosen for the operation." FM 100-5 [CALL Newsletter No. 93-3, "The Battalion and Brigade Staff," pp. 29-30]

- LL- As the maneuver commander war games the operation, the FSCOORD provides the most current information for applying all element of the fire support system. The FSCOORD recommends options to the maneuver commander and courses of action on how best to apply the fire support system in concert with the other operating systems. The maneuver commander provides the required target effects and the priorities for engaging targets and allocating fires. [CALL Newsletter No. 90-1, Fire Support for the Maneuver Commander, p. 5]
- LL- The process of war-gaming integrates the fire support target acquisition systems into the maneuver force battlefield intelligence collection plan (operations) and ensures that the task force uses the proper fire support means to engage targets. [CALL Newsletter No. 90-1, Fire Support for the Maneuver Commander, p. 5]

LL - TOPIC: TIMING

DISCUSSION: Brigade commanders and staffs must schedule rehearsals to allow subordinate units time to complete their orders process. Avoid the temptation to force subordinates to pay the price for the brigade to have a "convenient" time for the brigade rehearsal.

TTP: Commanders ensure that subordinates understand their intent and specific taskings by conducting an almost immediate backbrief after the order is issued. Rehearsal times are included in the order's coordinating instructions paragraph. Brigade rehearsals are scheduled to allow subordinates at least one-third of the available time to plan before they come to the rehearsal. [CALL CTC Bulletin No. 93-4, p. 16]

CONFIRMATION BRIEF

The commander conducts a confirmation brief with subordinates shortly after the operations order briefing. During the confirmation brief, subordinates tell the commander what their mission is. The commander provides subordinates time to analyze their mission while they are still at the order brief. Then subordinates brief him on their mission, tasks and their understanding of his intent. If there are misunderstandings, the commander corrects them before the subordinate commander begins planning. [CALL Newsletter 93-3, "The Battalion and Brigade Staff," pp. 31-32]

5. The battalion commander directs and leads subordinate forces.

LL - What Battle Command Means

Battle command is the *"art of battle decision making, leading, and motivating soldiers and their organizations into action to accomplish missions. [It] includes visualizing [the] current and future state, then formulating concepts of operations to get from one to the other at the least cost."*³ For commanders to visualize the current and future state, and then make the right decisions in battle, they must practice something called *seeing the battlefield*. That is, they must continually see the enemy, see the terrain, see themselves, and understand the relationship of the three. Upon that basis, they then make effective decisions and supervise their execution. This sounds deceptively simple, just as it was described by Sun Tzu in 400 BC: *"Know the enemy, know yourself; your victory will never be endangered. Know the ground, know the weather; your victory will then be total."*⁴ However, executing battle command is an extremely complex and difficult task. As the Army's keystone doctrinal manual, FM 100-5, states, leaders *"must assimilate thousands of bits of information to visualize the battlefield, assess the situation, and direct the military action required to achieve victory. Thinking and acting are simultaneous activities for leaders in battle. Visualizing the battlefield is a continuing requirement for commanders."*⁵

Battle command is really the *art* of command, based on *intuition* that comes from years of practice, experience, and study. It means seeing, or visualizing, the current state of both friendly and enemy forces; seeing and feeling the terrain of the battle

space with all its nuances; and visualizing how the three will interact as a result of key decisions. Then soldiers must be led and motivated to accomplish the commander's intent. Machines are highly suited for the task of seeing and keeping track of friendly forces, the enemy, and the terrain. Machines can also help the commander see the interrelationship of the three through automated war-gaming and rehearsals. This liberates the commander to concentrate on making decisions and leading and motivating soldiers. Machines should be used to complement the commander's intuition and free him up to practice the art of battle command, but it will assist only if the machines actually simplify the commander's job. [CALL, CTC Bulletin, 95-11, Chap 4 and 5]

LL - Battle Command at the NTC

From my observations at the NTC, and from the observations of many other senior observer/controllers (O/Cs), commanders of task forces and brigades frequently have great difficulty exercising effective battle command. They have difficulty gaining and maintaining situational awareness—seeing the enemy, seeing the terrain, and seeing themselves. Commanders and staffs rely upon the time-tested methods of the Industrial Age—written and oral reports, radio and telephone communications, key subordinates, and personal observations. All these methods are vulnerable to the fog of war and the friction of the battlefield. They present the commander and his staff with problems—sometimes critical problems—of timeliness and accuracy. Reports are incorrect, misinterpreted, or lost. The commander also faces the age-old dilemma of how to divide his time between personal contact with subordinates and personal participation in his own, and his bosses', planning and preparation processes. Moreover, what he is able to sense from personal observations is limited (or enhanced) by his own experiences and intuition. Much personal and unit energy is normally expended by the average outfit in gaining and maintaining essential situational awareness. For example, commanders have great difficulty sensing where the enemy is, and what his condition and intentions are, using current methods. Again, they must rely on written and oral reports, with all their imperfections, and limited radio and telephone communications, to augment their own observations and intuition. Their key subordinates, such as scouts or the S3 at another location, are limited by what they can see, assisted by the relatively limited 20th Century technology available. The young, usually inexperienced task force S2 and his two-or three-man section work themselves into the ground trying to gain enemy situational awareness. Failure to conduct thorough, focused reconnaissance and surveillance is normally the first weakness. But intelligence staffs are also hamstrung by communications based on weak, inadequate radios, and observation of the enemy based on little more than binoculars in the hands of the scouts. They are also hampered by inadequate personnel to compile the proper reports in the middle of the night and ask the key incisive questions about a fleeting enemy. Thus the commander frequently goes into battle with a poor picture, at best, of the enemy, his situation, and intentions.

Commanders also frequently have a very poor understanding of the terrain on which they will have to fight. They are not able to adequately see the key and decisive terrain beyond the most obvious features on the battlefield. Maps assist to some extent but are often limited by an inadequate contour interval and the age and accuracy of the data. Even when personal reconnaissance and subordinate reports are able to fill in the missing information, commanders have an extremely hard time sharing that critical information with their subordinates. Often, critical terrain information from reconnaissance is gathered too late in the preparation process to affect the outcome of the fight. Commanders frequently issue initial planning guidance at a command post and then stay there to assist with planning and preparations, only to become bogged down in situational awareness problems. Then, when they are able, they depart late in the process to conduct personal reconnaissance, only to find that the ground looks significantly different than it did on the map. Fields of fire shrink; fighting positions become untenable. Commanders and staffs may then be left with the right plan for the wrong terrain, relying on hope as the only remaining method for victory.

Additionally, they have difficulty seeing themselves, or gaining timely, accurate awareness of where their units are, their condition and status, and their ability to accomplish given missions. The commander must know where his subordinates are and what they are doing; and he must know what their logistics and maintenance status are, as well as what they are projected to be by the time he has to join the fight with them. Command posts and their staffs frequently struggle to maintain the current readiness status of subordinate units using monotonous periodic reports sent by FM radio or delivered by hand. Timeliness of reports often comes to be regarded as more important than the quality of the information therein, and commanders, therefore, continue to plan with sometimes useless data. The frequent result is a plan that becomes nearly inexecutable because unit status (e.g., number of operational combat vehicles, number of antitank mines on hand, status of TOW missile rounds, etc.) is different at execution time than it was when the planning occurred.

Finally, commanders and their staffs demonstrate great difficulty in visualizing the interrelationship of the enemy, the terrain, and themselves, even if they have a decent picture of the three individually. The main obstacles to the visualization process can normally be grouped under the headings of: commander's limitations, distracters, and unprepared staffs. The visualization process is normally conducted through some form of war-gaming. Sometimes commanders suffer from inadequate training, education, experience, or intuition. They are not sure what to do, and they have an insufficient intuitive base from which to visualize the battle. By the same token, lack of time and focus also hamper the process of war-gaming as staffs and commanders encounter many distracters. Some of these distracters come from meetings and planning sessions with others. Other distracters include the very process of trying to determine ground-truth situational awareness—trying to see the

enemy, see the terrain, and see themselves—that takes so much personal and unit energy. Finally, when commanders and staffs are able to devote adequate time and energy to the process, they frequently lack the tools necessary to visualize the battle. Staffs also often lack the necessary training and experience to intuitively know what to do. [CALL CTC Bulletin No. 95-11, Chap 4-5]

LL - TOPIC: TIMING

DISCUSSION: Brigade commanders and staffs must schedule rehearsals to allow subordinate units time to complete their orders process. Avoid the temptation to force subordinates to pay the price for the brigade to have a “convenient” time for the brigade rehearsal.

TTP: Commanders ensure that subordinates understand their intent and specific taskings by conducting an almost immediate backbrief after the order is issued. Rehearsal times are included in the order’s coordinating instructions paragraph. Brigade rehearsals are scheduled to allow subordinates at least one-third of the available time to plan before they come to the rehearsal. [CALL CTC Bulletin No. 93-4, p. 16]

LL - TOPIC: EFFECTIVE REHEARSALS

DISCUSSION: An effective rehearsal is one that allows each subordinate unit commander and brigade staff officer the opportunity to visualize the battlefield as it will be during the conduct of the operation. This includes the special relationship of each unit, critical actions on the battlefield, the timing of key events, the criticality of his unit or action to mission accomplishment, and actions of the enemy forces facing the brigade. Effective rehearsals begin with a complete, war-gamed plan or order. Clear statements of mission, commander’s intent, schemes of maneuver and fire support, tasks to subordinate units, and coordinating instructions set the stage for the rehearsal. War-gaming during the planning process enables the staff to develop a synchronization matrix and a decision support template. This war-gaming yields the requirements for subordinate unit actions (task and purposes) and determines the criteria to implement changes to order (decision point criteria). Practicing the execution of these tasks, ensuring that they accomplish the stated purposes, and practicing the implementation of planned changes are requirements for all rehearsals. The commander may designate critical events he wishes to rehearse if resource constraints do not allow a complete rehearsal. The most effective type of rehearsal is a full-dress rehearsal, but time and other resources often prevent the unit from accomplishing the full-dress rehearsal. At the brigade level, the complexity of operations often dictates multiple rehearsals, often using different techniques. For example, an offensive mission may call for a brigade terrain model rehearsal, followed by a key leader breach rehearsal, followed by a radio (technical) rehearsal of fire support. [CALL CTC Bulletin No. 93-4, p. 18]

- LL- The most effective method of ensuring that the commander guidance is understood is for the FSCoord to brief back his understanding of the commander's fire support guidance to the maneuver commander. This ensures that the FSCoord understands how the maneuver commander sees how fire support will be used in the operation.

Successful units have found this to be an invaluable method of eliminating misunderstandings as to the true intent of the maneuver commander. Only after the commander's guidance and intent is clearly defined and understood can the FSCoord and the FSO conduct their planning, war-gaming, and rehearsing of the operation with the commander and his battle staff. [CALL Newsletter Fire Support for the Maneuver Commander 90-1]

FIRE SUPPORT PLAN REHEARSALS

Throughout the planning and preparation phases of the operation the maneuver commander and the FSCoord continually work to focus and refine the plans that the organization is preparing to defeat the enemy. The final step in the development of the fire support plan is the combined arms rehearsal.

How the rehearsal is conducted is a function of the time and resources available to the force. Rehearsals range from a full-scale dress rehearsal with all units, to a simple sand table on the ground using rocks as units and having boundaries of spray paint or engineer tape, to leaders and key personnel of an organization sitting down at a map and talking through how they will fight the battle.

How the rehearsal looks is not as important as what it accomplishes. The rehearsal will be more effective if all of the battlefield operating systems are included. The maneuver commander and subordinate commanders, as well as the FSCoord, must rehearse the fire support plan at the same time as the maneuver plan.

A rehearsal is an effective tool for identifying and refining battle plans. The keys to an effective rehearsal are that:

- * the positioning and movement plans of the artillery units are exercised.
- * the target acquisition plan under the supervision of the field artillery S-2 is verified.
- * the fire support plan is validated with the scheme of maneuver, the commander's intent, and attack guidance.
- * the obstacle/barrier plan of the maneuver force is part of the fire support plan.
- * the fire and maneuver control measures for protecting and controlling aerial and ground forces do not disrupt the fire support plan, and are not violated by the plan.
- * the plans for close air support and army aviation are integrated into the scheme of maneuver and the fire support plan.
- * other key or special aspects of the maneuver plan are integrated with the fire support plan

- * target grids and trigger points are verified.

The rehearsal provides the FSCOORD and FSO with an opportunity to identify gaps in the fire plan, potential engagement areas that were not found during the initial planning and war-gaming process, and obstacles or barriers that are not covered with fires. The FSO should also use the rehearsal to identify targets that cannot be observed without the use of remote sensors.

The FSCOORD uses the rehearsal to verify the reposition times for the artillery units developed during the estimate process, as well as to determine windows for massing fires or periods of reduced fire support to the maneuver force. Rehearsals provide the maneuver commander and the FSCOORD with the opportunity to synchronize the fire support plan with the scheme of maneuver. [CALL Newsletter Fire Support for the Maneuver Commander 90-1]

LL - TOPIC: BATTLEFIELD OPERATING SYSTEMS (BOSS) INVOLVEMENT

DISCUSSION: A combined arms rehearsal is more effective than a maneuver, or even a maneuver and fires rehearsal. The brigade subordinate unit commanders need to "see" their relationship to each other as the battle unfolds. The effects on the battlefield need to be replicated in accordance with the plan and the assumptions about the enemy. Timing and special relationships are practiced during the rehearsal and discrepancies are resolved.

TTP: Each subordinate unit commander "plays" himself and the subordinates in his unit. The rehearsal is just that: each subordinate acts out his unit's actions as they will occur in accordance with the brigade and his plans. When possible, each gives the report he expects to give at the appropriate time; the commander should rehearse giving the orders he expects to give as appropriate. Fire support may be rehearsed with the subordinate battalion and company FSOs rehearsing their planned fire missions at the appropriate time and place. Enemy events and a general chronology of critical friendly events trigger actions at the rehearsal. The sequence should usually be enemy actions, acquisition of these actions and the subsequent reports, friendly maneuver actions, and friendly fire support actions. As applicable, engineer/chemical defense/ADA/CP actions, and logistics support actions are also rehearsed. War-gaming should occur only when a shortfall in the plan is discovered; otherwise, rehearse the approved plan. [CALL CTC Bulletin No. 93-4, p. 17]

- LL - Integration and synchronization are not successfully done in deliberate planning. Synchronization matrices are misunderstood and often are not considered worth the investment of time by the staff. This results in disjointed plans and uncoordinated execution. Synchronization matrices are usually the first step deleted during abbreviated planning processes. As a result, units do not gain the full potential of all available combat multipliers. This leads to piecemeal commitment of combat power and extensive friendly casualties. A synchronization matrix can be done in ten minutes if mission, enemy, terrain, troops, and time available (METT-T) dictates. [CALL CTC Bulletin No. 93-4, p. 2]

LL - SYNCHRONIZATION

Synchronization is the most difficult element to rehearse on the combined arms battlefield.

GOOD REHEARSAL = SYNCHRONIZATION

Successful combined arms operations are characterized by agility, initiative, depth, and synchronization. Of these, one of the most difficult to attain and achieve is synchronization. Different systems available to the commander have different capabilities, and these differing capabilities must be brought to bear to achieve the desired effect. Synchronization is the effective integration of all participants in support of the plan. It is achieved through detailed planning and rehearsals. One technique is to use the reverse planning process. Another planning technique which supports synchronization is time or event phasing. When performed using a matrix, this planning technique assists the commander in bringing together the various divergent assets available at the proper time. The chance units which have the degree of personnel turbulence experienced in the U.S. Army is low. Rehearsals, at all levels, and of all tasks, are essential to ensure that all personnel know what the commander intends to accomplish, and how he intends to accomplish it. Rehearsals provide substance to the bare bones of the written or oral order and provide the foundation upon which effective synchronization is based. [CALL Newsletter No. 91, "Rehearsals," p. 17]

LL - MILITARY DECISION-MAKING PROCESS

Commanders and staffs can assist their subordinates to understand the plan by conducting additional briefings and rehearsals. Backbriefs, confirmation briefs, and rehearsals conducted by the commander and staff assist subordinates in understanding the order.

BACKBRIEF

After subordinate commanders have had time to develop their plans, they meet with the commander collectively to review their plans. The subordinate commanders brief the commander on the details of how they will accomplish their mission. It is beneficial for the commander to meet with all his subordinate commanders together, rather than one at a time. A commander will identify a problem that will require coordination with other commanders. If everyone is at the same location, the problem can be solved quickly while at the backbrief.

REHEARSALS

The final event to emphasize and conduct to ensure that subordinates understand the plan is the rehearsal. The commander identifies the type of rehearsal during his planning guidance. There are seven types of rehearsals a commander can choose from: full, key leader, terrain model, sketch map, map, radio and backbrief. His decision will depend on the amount of time and resources available. [CALL Newsletter 93-3, "The Battalion and Brigade Staff," pp. 31-32]

GATE TASKS

This component identifies critical individual or collective tasks upon which each battlefield function (BF) task identified in the task list is dependent. In order to ensure efficient and safe training of the major task, the participants should have achieved a level of proficiency or understanding in these gate tasks.

TASK

INDIVIDUAL/COLLECTIVE PROFICIENCIES

- 1. The direct support field artillery battalion command posts and staff manage and maintain command, control, and communications.**

DS FA Bn Cdr

[STP 21-II-MQS, Common Tasks]

- Communicate effectively as a Cdr or staff officer. [03-9001.12-0003]

DS FA Bn XO

[STP 21-II-MQS, Common Tasks]

- Communicate effectively as a Cdr or staff officer. [03-9001.12-0003]

[STP 9-91BCII-MQS, Ordinance]

- Oversee the planning, establishment, and management of a multi-functional tactical CP. [01-9253.00-0002]

[STP10-92ABDII-MQS, Quartermaster]

- Determine field locations for CSS units. [01-9253.00-0003]

S4 Section

- Assess unit capabilities to support proposed operations. [S3-5101.00-0229]

DS FA Bn S3

[STP 21-II-MQS, Common Tasks]

- Communicate effectively as a Cdr or staff officer. [03-9001.12-0003]

[STP 6-13II-MQS, Artillery]

- Plan field artillery support of maneuver units. [01-2999.94-0100]
- Recommend FSCM. [01-299.94.0101]
- Develop an FS plan to support an offensive operation. [01-2660.00-2008]
- Develop an FS plan to support a

- defensive operation. [01-2660.00-2009]
- Apply the FSCoord measures.
[01-2840.00-2025]
- Direct the establishment of and verify
Cdr's criteria. [01-2770.01-0115]
- Direct the establishment of a fire plan in
the IFSAS/AFATDS computer.
[01-2770.01-0115]
- Direct processing of the fire support
request. [01-2770.01-0133]

DS FA Bn assistant S3 (AS3)

[STP 21-II-MQS, Common Tasks]

- Communicate effectively as a Cdr or
staff officer. [03-9001.12-0003]

[ARTEP 6-115-MTP]

- Prepare battalion operations estimates,
tactical plans, and movement orders.
[06-3-01-2120]
- Direct CP and tactical center internal
security operations.
[01-3761.00-1103]

DS FA Bn HHB Cdr

[STP 21-II-MQS, Common Tasks]

- Communicate effectively as a Cdr or
staff officer. [03-9001.12-0003]

DS FA Bn S4

[STP 21-II-MQS, Common Tasks]

- Communicate effectively as a Cdr or
staff officer. [03-9001.12-0003]

[STP 9-91BCII-MQS, Ordinance]

- Oversee the planning, establishment, and
management of a multi-functional
tactical CP.
[01-9253.00-0002]
- Direct CP and tactical center internal
security operations.
[01-3761.00-1103]

DS FA Bn S1

[STP 21-II-MQS, Common Tasks]

- Communicate effectively as a Cdr or staff officer. [03-9001.12-0003]

[STP 9-91BCII-MQS, Ordinance]

- Oversee the planning, establishment, and management of a multi-functional tactical CP.

[01-9253.00-0002]

- Direct CP and tactical center internal security operations. [01-3761.00-1103]

DS FA Bn S4 NCOIC

DS FA Bn FDO.

[STP 21-II-MQS, Common Tasks]

- Communicate effectively as a Cdr or staff officer. [03-9001.12-0003]

2. **Direct support field artillery battalion command posts acquire, evaluate, and communicate information and maintain status.**

DS FA Bn Cdr

[STP 21-II-MQS, Common Tasks]

- Communicate effectively as a Cdr or staff officer. [03-9001.12-0003]

[STP 6-13II-MQS, Artillery]

- Advise maneuver Cdr on employment of available fire support assets.

[01-2999.94-0106]

[STP 6-13II-MQS, Artillery]

- Plan field artillery support of maneuver units. [01-2999.94-0100]

DS FA Bn XO

[STP 21-II-MQS, Common Tasks]

- Communicate effectively as a Cdr or staff officer. [03-9001.12-0003]

[STP 6-13II-MQS, Artillery]

- Recommend FSCM. [01-299.94.0101]

[STP 6-13II-MQS, Artillery]

- Develop a FASP. [01-2999.94-0104]

DS FA Bn CSM

[STP 21-24-SMCT, Common Tasks]

- Inspect personnel/equipment.
[071-328-5301]

[ARTEP 71-2-MTP]

- Assist in planning for
establishment/occupy/depart of assembly
areas. [7-1-3002]

DS FA Bn S2

[STP 21-II-MQS, Common Tasks]

- Communicate effectively as a Cdr or
staff officer. [03-9001.12-0003]

[STP 34-35II-MQS, Intelligence]

- Conduct intelligence liaison.
[01-3381.16-5001]
- Conduct battlefield area evaluation.
[013381.01-4012]
- Conduct terrain and weather analysis.
[01-3381.01-4013].
- Prepare OB studies. [01-3381.41-4015]
- Conduct threat evaluation.
[01-3381.01-4014]
- Participate in the threat integration
process. [01-3381.01-4015]
- Conduct situation development.
[01-3381.01-4016]
- Conduct target development.
[01-3381.01-4017]
- Prepare the intelligence estimate.
[01-3381.41-4004]

DS FA Bn intelligence section

[STP 34-35II-MQS, Intelligence]

- Participate in the development of
intelligence requirements.
[01-3381.01-5001]
- Conduct battlefield area evaluation.
[01-3381.01-4012]
- Conduct target development.
[01-3381.01-4017]
- Recommend force protection
countermeasures. [01-3381.16-5003]

- Disseminate intelligence and combat information. [01-3381.39-4005]
- Analyze intelligence and combat information. [01-3381.39-4004]
- Record intelligence and combat information. [01-3381.39-4003]
- Direct analysis and dissemination of information. [01-3381.41-5002]
- Direct collection management operations. [01-3381.44-5002]

[ARTEP 34-245-10-DRILL, Intelligence Section]

- Record intelligence information. [Drill 1]

DS FA Bn Senior Intel NCO

[STP 21-II-MQS, Common Tasks]

- Communicate effectively as a Cdr or staff officer. [03-9001.12-0003]

[STP 34-35II-MQS, Intelligence]

- Conduct intelligence and electronic warfare support element operations. [01-3381.04-5003]

[STP 34-96B14-SM-TG, Intelligence Analyst]

- Coordinate targeting function. [301-336-4100]
- Supervise preparation/maintenance of situation map by subordinate personnel. [301-336-3051]
- Supervise receipt/transfer/storage of classified material. [301-336-3201]
- Supervise preparation of intelligence estimate. [301-336-3104]

DS FA Bn S3

[STP 21-II-MQS, Common Tasks]

- Communicate effectively as a Cdr or staff officer. [03-9001.12-0003]
- Brief to inform, persuade, or direct. [01-9007.01-0250]

[STP 6-13II-MQS, Artillery]

- Plan field artillery support of maneuver units. [01-2999.94-0100]
- Recommend FSCM. [01-299.94.0101]
- Develop an FS plan to support an offensive operation. [01-2660.00-2008]
- Develop an FS plan to support a defensive operation. [01-2660.00-2009]
- Apply the FSCM. [01-2840.00-2025]
- Direct the establishment of and verify Cdr's criteria. [01-2770.01-0115]
- Direct the establishment of a fire plan in the IFSAS/AFATDS computer. [01-2770.01-0115]
- Direct processing of the fire support request. [01-2770.01-0133]
- Coordinate employment of field artillery survey and meteorological assets. [01-2999.94-0107]
- Coordinate employment of field artillery target acquisition assets. [01-2999.94-0103]

DS FA Bn S3 Section

[ARTEP 6-115-MTP]

- Manage operations reports and information. [06-3-01-2150]

DS FA Bn Opns SGT

[STP 6-13F14-SM-TG]

- Pass fire support information of lower, adjacent, and higher field artillery elements. [061-284-3046]

[STP 6-13F14-SM-TG]

- Post information on a SITMAP/overlay. [061-284-1011]

[STP 21-24-SMCT, Common Tasks]

- Prepare SITREP. [071-332-5022]

[STP 21-24-SMCT, Common Tasks]

- Prepare a strip map. [551-721-3359]

DS FA Bn FDO

[STP 6-13II-MQS, Artillery]

- Supervise a battalion FDC. [01-2999.94-0102]
- Direct the establishment of a fire plan in the IFSAS/AFATDS computer. [01-2770.01-0115]
- Direct the evaluation and dissemination of intel reports using IFSAS/AFATDS. [01-2770.01-0114]
- Direct the processing of special missions. [01-2770.01-0112]
- Direct processing of the fire support request. [01-2770.01-0133]

DS FA Bn RSO

[STP 6-13II-MQS, Artillery]

- Plan establishment of field artillery survey control. [01-2999.97-0403]
- Verify field artillery survey computations. [01-2999.97-0404]

DS FA Bn CMLO

[STP 21-II-MQS, Common Tasks]

- Communicate effectively as a Cdr or staff officer. [03-9001.12-0003]
- Perform a map reconnaissance. [01-1250.00-0002]

[STP 3-74II-MQS, Chemical]

- Identify operation and functions of chemical units and staffs. [01-5060.02-2138]

Bde FSO

[STP 21-II-MQS, Common Tasks]

- Communicate effectively as a Cdr or staff officer. [03-9001.12-0003]

[STP 6-13II-MQS, Artillery]

- Advise maneuver Cdr on employment of available fire support assets. [01-2999.94-0106]

- Plan field artillery support of maneuver units. [01-2999.94-0100]
- Recommend FSCM. [01-299.94.0101]
- Develop an FS plan to support a defensive operation. [01-2660.00-2009]
- Advise the Cdr on the capabilities of available target acquisition assets. [01-3020.00-7002]
- Advise the maneuver Cdr on IFSAS/AFATDS operations. [01-2770.01-0118]
- Advise the maneuver Cdr on employment of COLTs. [01-2840.00-2039]
- Recommend FSCM, and coordinate fires. [01-2840.00-2042]
- Apply the FSCM. [01-2840.00-2025]
- Direct the establishment of and verify Cdr's criteria. [01-2770.01-0115]
- Direct the establishment of a fire plan in the IFSAS/AFATDS computer. [01-2770.01-0115]

Bde FSE

[ARTEP 6-115-20-MTP]

- Provide Bde level fire support coordination. [06-3-02-1100]

DS FA Bn S1

[STP 21-II-MQS, Common Tasks]

- Communicate effectively as a Cdr or staff officer. [03-9001.12-0003]

DS FA Bn S1 Section

[ARTEP 6-115-MTP]

- Perform strength accounting. [12-1-C404]
- Process replacements. [12-1-C405]
- Provide mail services. [12-1-C402]
- Perform administrative functions. [12-1-C406]
- Coordinate and establish a temporary EPW collection point. [12-1-C407]

Chaplain

[STP 21-II-MQS, Common Tasks]

- Communicate effectively as a Cdr or staff officer. [03-9001.12-0003]

Surgeon

[STP 21-II-MQS, Common Tasks]

- Communicate effectively as a Cdr or staff officer. [03-9001.12-0003]

DS FA Bn S4

[STP 21-II-MQS, Common Tasks]

- Communicate effectively as a Cdr or staff officer. [03-9001.12-0003]

[STP 9-91BCII-MQS, Ordinance]

- Oversee the planning, establishment, and management of a multi functional tactical CP. [01-9253.00-0002]

[STP 10-92ABDII-MQS, Quartermaster]

- Determine field locations for CSS units. [01-9253.00-0003]

S4 Section

- Evaluate Class IX performance. [01-4716.26-0002]
- Assess unit capabilities to support proposed operations. [S3-5101.00-0229]

DS FA Bn SO

[STP 21-II-MQS, Common Tasks]

- Communicate effectively as a Cdr or staff officer. [03-9001.12-0003]

[STP 11-25II-MQS, Signal]

- Implement communications system control element operations. [01-5753.07-002]
- Manage network traffic routing. [01-5710.07-002]
- Perform distribution management of communications variables for combat radio operations using battlefield SOI

- system. [01-5880.07-001]
- Employ communications system of a maneuver brigade or battalion. [01-5841.07-001]
- Identify the data communications techniques used with tactical communications systems. [01-5769.04-0001]

DS FA Bn HHB Cdr

[STP 21-II-MQS, Common Tasks]

- Communicate effectively as a Cdr or staff officer. [03-9001.12-0003]

DS FA Bn HHB 1SG

[STP 21-24-SMCT, Common Tasks]

- Inspect personnel/equipment. [071-328-5301]
- Prepare an oral OPORD. [071-326-5626]
- Prepare a strip map. [551-721-3359]
- Supervise unit preventive medicine and field sanitation procedures. [081-831-0102]
- Conduct OPSEC procedures. [113-573-0002]
- Perform duties as convoy Cdr. [551-721-4326]
- Integrate risk management into mission. [850-001-4001]
- Supervise unit preparation for NBC attack. [031-503-4002]

[STP 6-13B24-SM-TG]

- Prepare and/or defend a unit against an attack. [061-266-4014]

3. **The direct support field artillery battalion commander visualizes the battlefield.**

DS FA Bn Cdr

[STP 21-II-MQS, Common Tasks]

- Solve problems using the military problem-solving process. [03-9001.13-0001]

DS FA Bn XO

[STP 21-II-MQS, Common Tasks]

- Solve problems using the military problem-solving process. [03-9001.13-0001]

DS FA Bn S2

[STP 21-II-MQS, Common Tasks]

- Solve problems using the military problem-solving process. [03-9001.13-0001]

[STP 34-35II-MQS, Intelligence]

- Participate in the development of intelligence requirements. [01-3381.01-5001].
- Direct the intelligence portion of the IPB process. [01-3381.01-5002].
- Prepare the intelligence estimate. [01-3381.41-4004].

DS FA Bn S2 Section

[ARTEP 34-245-10-DRILL, Intelligence Section]

- Perform IPB. [Drill 2]

DS FA Bn Senior Intel NCO

[STP 34-96B14-SM-TG, Intelligence Analyst]

- Review current intelligence holdings to identify gaps. [301-336-2004]
- Supervise preparation of intelligence estimate. [301-336-3104]

DS FA Bn S3

[STP 21-II-MQS, Common Tasks]

- Solve problems using the military problem-solving process.

[03-9001.13-0001]

- Direct CP and tactical center internal security operations. [01-3761.00-1103]

[STP 6-13II-MQS, Artillery]

- Plan field artillery support of maneuver units. [01-2999.94-0100]
- Recommend FSCM. [01-299.94.0101]
- Develop an FS plan to support an offensive operation. [01-2660.00-2008]
- Develop an FS plan to support a defensive operation. [01-2660.00-2009]
- Apply the FSCOORD measures. [01-2840.00-2025]
- Direct the establishment of and verify Cdr's criteria. [01-2770.01-0115]
- Direct the establishment of a fire plan in the IFSAS/AFATDS computer. [01-2770.01-0115]
- Direct processing of the fire support request. [01-2770.01-0133]
- Coordinate employment of field artillery survey and meteorological assets. [01-2999.94-0107]
- Coordinate employment of field artillery target acquisition assets. [01-2999.94-0103]

DS FA Bn S3 Section

[ARTEP 6-115-MTP]

- Manage operations reports and information. [06-3-01-2150]
- Prepare Bn operations estimates, tactical plans, and movement orders. [06-3-01-2120]

DS FA Bn Opns SGT

[STP 6-13F14-SM-TG]

- Pass fire support information of lower, adjacent, and higher field artillery elements. [061-284-3046]
- Post information on a SITMAP/overlay. [061-284-1011]

[STP 21-24-SMCT, Common Tasks]

- Prepare SITREP.
[071-332-5022]
- Prepare a strip map. [551-721-3359]

DS FA Bn FDO

[STP 6-13II-MQS, Artillery]

- Supervise a battalion FDC. [01-2999.94-0102]
- Direct the establishment of a fire plan in the IFSAS/AFATDS computer.
[01-2770.01-0115]
- Direct the evaluation and dissemination of intel reports using IFSAS/AFATDS.
[01-2770.01-0114]
- Direct the processing of special missions. [01-2770.01-0112]
- Direct processing of the fire support request. [01-2770.01-0133]

DS FA Bn RSO

[STP 6-13II-MQS, Artillery]

- Plan establishment of field artillery survey control. [01-2999.97-0403]
- Verify field artillery survey computations. [01-2999.97-0404]

DS FA Bn CMLO

[STP 21-II-MQS, Common Tasks]

- Solve problems using the military problem-solving process. [03-9001.13-0001]

Bde/Bn TF FSO

[STP 21-II-MQS, Common Tasks]

- Solve problems using the military problem-solving process. [03-9001.13-0001]

[STP 6-13II-MQS, Artillery]

- Advise maneuver Cdr on employment of available fire support assets.
[01-2999.94-0106]
- Plan field artillery support of maneuver

units. [01-2999.94-0100]

- Recommend FSCM. [01-299.94.0101]
- Develop an FS plan to support a defensive operation. [01-2660.00-2009]
- Advise the Cdr on the capabilities of available target acquisition assets. [01-3020.00-7002]
- Advise the maneuver Cdr on IFSAS/AFATDS operations. [01-2770.01-0118]
- Advise the maneuver Cdr on employment of COLTs. [01-2840.00-2039]
- Recommend FSCM and coordinate fires. [01-2840.00-2042]
- Apply the FSCM. [01-2840.00-2025]
- Direct the establishment of and verify Cdr's criteria. [01-2770.01-0115]
- Direct the establishment of a fire plan in the IFSAS/AFATDS computer. [01-2770.01-0115]

Bde FSE

[ARTEP 6-115-20-MTP]

- Provide Bde-level fire support coordination. [06-3-02-1100]

DS FA Bn S1

[STP 21-II-MQS, Common Tasks]

- Solve problems using the military problem-solving process. [03-9001.13-0001]

DS FA Bn chaplain

[STP 21-II-MQS, Common Tasks]

- Solve problems using the military problem-solving process. [03-9001.13-0001]

DS FA Bn Surgeon

[STP 21-II-MQS, Common Tasks]

- Solve problems using the military problem-solving process. [03-9001.13-0001]

DS FA Bn S4

[STP 21-II-MQS, Common Tasks]

- Solve problems using the military problem-solving process. [03-9001.13-0001]

[STP 9-91 BCII-MQS, Ordinance]

- Evaluate Class IX performance. [01-4716.26-0002]

[STP 10-92ABDII-MQS, Quartermaster]

- Determine Class V (conventional) requirements. [01-4000.11-1111]
- Determine and verify water requirements for a unit. [01-5103.00-0030]
- Assess unit capabilities to support proposed operations. [S3-5101.00-0229]

[STP 55-88II-MQS, Transportation]

- Determine aircraft requirements to move cargo, equipment, and personnel. [01-7320.70-0460]

DS FA Bn S4 Section

[STP 10-92A35-SM-TG, Automated Log Spec]

- Check the accuracy of prescribed load list (PLL) using the automated unit level logistics system. [101-525-3015]

[STP 10-92Y24-SM-TG, Unit Supply Spec]

- Inspect and provide technical assistance to units. [101-521-4101]
- Check accuracy of PLL records. [101-521-4107]
- Check accuracy of the army maintenance management system maintenance and historical records. [101-521-4108]

[STP 10-94B25-SM-TG, Food Service Spec]

- Determine requirements and establish procedures in support of field operations. [101-524-3279]

[STP 10-76X24-SM-TG, Subsistence Supply Spec]

- Review the basic daily food allowance. [101-520-4154]
- Prepare the schedule of field ration issues. [101-520-4104]
- Plan a field storage layout. [101-520-4153]

Bn SO

[STP 21-II-MQS, Common Tasks]

- Solve problems using the military problem-solving process. [03-9001.13-0001]

DS FA Bn HHB Cdr

[STP 21-II-MQS, Common Tasks]

- Solve problems using the military problem-solving process. [03-9001.13-0001]

4. **The direct support field artillery battalion commander directs changes to the operation or plan.**

Bn Cdr

[STP 21-II-MQS, Common Tasks]

- Solve problems using the military problem-solving process. [03-9001.13-0001]

Bn XO

[STP 21-II-MQS, Common Tasks]

- Solve problems using the military problem-solving process. [03-9001.13-0001]

DS FA Bn S2

[STP 34-35II-MQS, Intelligence]

- Participate in the development of intelligence requirements. [01-3381.01-5001]
- Direct the intelligence portion of the IPB process. [01-3381.01-5002]
- Conduct battlefield area evaluation. [013381.01-4012]
- Conduct terrain and weather analysis.

- [01-3381.01-4013]
- Prepare OB studies. [01-3381.41-4015]
- Conduct threat evaluation.
[01-3381.01-4014]
- Participate in the threat integration
process. [01-3381.01-4015]
- Conduct situation development.
[01-3381.01-4016]
- Conduct target development.
[01-3381.01-4017]
- Prepare the intelligence estimate.
[01-3381.41-4004].

DS FA Bn S2 Section

[ARTEP 34-245-10-DRILL, Intelligence
Section]

- Perform IPB. [Drill 2]

Senior Intel NCO

[STP 34-96B14-SM-TG, Intelligence
Analyst]

- Review current intelligence holdings to
identify gaps. [301-336-2004]
- Supervise preparation of intelligence
estimate. [301-336-3104]
- Recommend area of interest and
operation based on METT-T.
[301-336-4000]
- Supervise organization and maintenance
of OB information. [301-336-2001]

DS FA Bn S3

- Perform a map reconnaissance.
[01-1250.00-0002]
- Plan the IPB. [01-3353.02-0090]

[ARTEP 6-115-MTP]

- Coordinate staff actions. [06-3-01-2160]
- Prepare battalion operations estimates,
tactical plans, and movement orders.
[06-3-01-2120]
- Direct CP and tactical center internal
security operations.
[01-3761.00-1103]

[STP 6-13II-MQS, Artillery]

- Plan field artillery support of maneuver units. [01-2999.94-0100]
- Recommend FSCM. [01-299.94.0101]
- Develop an FS plan to support an offensive operation. [01-2660.00-2008]
- Develop an FS plan to support a defensive operation. [01-2660.00-2009]
- Apply the FSCOORD measures. [01-2840.00-2025]
- Direct the establishment of and verify Cdr's criteria. [01-2770.01-0115]
- Direct the establishment of a fire plan in the IFSAS/AFATDS computer. [01-2770.01-0115]
- Direct processing of the fire support request. [01-2770.01-0133]
- Coordinate employment of field artillery survey and meteorological assets. [01-2999.94-0107]
- Coordinate employment of field artillery target acquisition assets. [01-2999.94-0103]

DS FA Bn S3 Section

[ARTEP 6-115-MTP]

- Manage operations reports and information. [06-3-01-2150]
- Prepare battalion operations estimates, tactical plans, and movement orders. [06-3-01-2120]
- Perform a map reconnaissance. [01-1250.00-0002]

DS FA Bn Opns SGT

[STP 6-13F14-SM-TG]

- Pass fire support information of lower, adjacent, and higher field artillery elements. [061-284-3046]

[STP 6-13F14-SM-TG]

- Post information on a SITMAP/overlay. [061-284-1011]

[STP 21-24-SMCT, Common Tasks]

- Prepare SITREP.
[071-332-5022]

[STP 21-24-SMCT, Common Tasks]

- Prepare a strip map. [551-721-3359]

FDO

[STP 6-13II-MQS, Artillery]

- Supervise a battalion FDC. [01-2999.94-0102]
- Direct the establishment of a fire plan in the IFSAS/AFATDS computer.
[01-2770.01-0115]
- Direct the evaluation and dissemination of intel reports using IFSAS/AFATDS.
[01-2770.01-0114]
- Direct the processing of special missions. [01-2770.01-0112]
- Direct processing of the fire support request. [01-2770.01-0133]

RSO

[STP 6-13II-MQS, Artillery]

- Plan establishment of field artillery survey control. [01-2999.97-0403]
- Verify field artillery survey computations. [01-2999.97-0404]

CMLO

- Perform a map reconnaissance.
[01-1250.00-0002]
- Plan the IPB. [01-3353.02-0090]

FSO

- Perform a map reconnaissance.
[01-1250.00-0002]
- Plan the IPB. [01-3353.02-0090]

[STP 6-13II-MQS, Artillery]

- Advise maneuver Cdr on employment of available fire support assets.
[01-2999.94-0106]

- Plan field artillery support of maneuver units. [01-2999.94-0100]
- Recommend FSCM. [01-299.94.0101]
- Interpret threat organization and equipment. [01-2660.00-2004]
- Develop an FS plan to support an offensive operation. [01-2660.00-2008]
- Develop an FS plan to support a defensive operation. [01-2660.00-2009]
- Explain employment considerations of FA special munitions. [01-2660.00-2005]
- Advise the Cdr on the capabilities of available target acquisition assets. [01-3020.00-7002]
- Advise the maneuver Cdr on IFSAS/AFATDS operations. [01-2770.01-0118]
- Advise the maneuver Cdr on employment of COLTs. [01-2840.00-2039]

FSE

[ARTEP 6-115-20-MTP]

- Provide brigade-level fire support coordination. [06-3-02-1100]
- Perform a map reconnaissance. [01-1250.00-0002]
- Plan the IPB. [01-3353.02-0090]
- Provide input to IPB. [01-2250.20-1006]

S1

[ARTEP 6-115-MTP]

- Participate in the OPORD process. [12-1-C408]

S1 Section

[ARTEP 6-115-MTP]

- Participate in the OPORD process. [12-1-C408]

DS FA Bn S4

[STP 10-92ABDII-MQS, Quartermaster]

- Assess unit capabilities to support proposed operations. [S3-5101.00-0229]
- Prepare command logistics plans, estimates, and orders. [03-5106.00-0166]

[STP 55-88 II-MQS, Transportation]

- Plan logistics support for maintenance operations. [01-4720.26-0001]
- Plan evacuation of equipment. [01-4999-26-0001]
- Plan convoy operations. [01-7300.75-0500]
- Plan use of host-nation assets. [01-7320.70-0435]
- Plan highway net use. [01-7320.75-0535]
- Request host-nation transportation support. [01-7320.70-0480]

Bn SO

[STP 11-25II-MQS, Signal]

- Prepare and review signal estimates, plans, and orders. [01-5765.04-9001]

DS FA Bn HHB 1SG

[STP 21-24-SMCT, Common Tasks]

- Inspect personnel/equipment. [071-328-5301]
- Prepare an oral OPORD. [071-326-5626]
- Prepare a strip map. [551-721-3359]
- Supervise unit preventive medicine and field sanitation procedures. [081-831-0102]
- Conduct OPSEC procedures. [113-573-0002]
- Perform duties as convoy Cdr. [551-721-4326]
- Integrate risk management into mission. [850-001-4001]
- Supervise unit preparation for NBC attack. [031-503-4002]

5. **The direct support field artillery battalion commander directs and leads subordinate forces.**

[STP 6-13B24-SM-TG]

- Prepare and/or defend a unit against an attack. [061-266-4014]

DS FA Bn S3

[STP 21-II-MQS, Common Tasks]

- Communicate effectively as a Cdr or staff officer. [03-9001.12-0003]

[ARTEP 6-115-MTP]

- Prepare battalion operations estimates, tactical plans, and movement orders. [06-3-01-2120]
- Direct CP and tactical center internal security operations. [01-3761.00-1103]

[STP 6-13II-MQS, Artillery]

- Plan field artillery support of maneuver units. [01-2999.94-0100]
- Recommend FSCM. [01-299.94.0101]
- Develop an FS plan to support an offensive operation. [01-2660.00-2008]
- Develop an FS plan to support a defensive operation. [01-2660.00-2009]
- Apply the FSCoord measures. [01-2840.00-2025]
- Direct the establishment of and verify Cdr's criteria. [01-2770.01-0115]
- Direct the establishment of a fire plan in the IFSAS/AFATDS computer. [01-2770.01-0115]
- Direct processing of the fire support request. [01-2770.01-0133]
- Coordinate employment of field artillery survey and meteorological assets. [01-2999.94-0107]
- Coordinate employment of field artillery target acquisition assets. [01-2999.94-0103]

DS FA Bn S2

[STP 21-II-MQS, Common Tasks]

- Communicate effectively as a Cdr or staff officer. [03-9001.12-0003]

[STP 34-35II-MQS, Intelligence]

- Conduct situation development. [01-3381.01-4016]
- Prepare the intelligence estimate. [01-3381.41-4004]
- Recommend force protection countermeasures. [01-3381.16-5003]

DS FA Bn S3 Section

[ARTEP 6-115-MTP]

- Manage operations reports and information. [06-3-01-2150]
- Prepare battalion operations estimates, tactical plans, and movement orders. [06-3-01-2120]
- Perform a map reconnaissance. [01-1250.00-0002]

FDO

[STP 6-13II-MQS, Artillery]

- Supervise a battalion FDC. [01-2999.94-0102]
- Direct the establishment of a fire plan in the IFSAS/AFATDS computer. [01-2770.01-0115]
- Direct the evaluation and dissemination of intel reports using IFSAS/AFATDS. [01-2770.01-0114]
- Direct the processing of special missions. [01-2770.01-0112]
- Direct processing of the fire support request. [01-2770.01-0133]

RSO

[STP 6-13II-MQS, Artillery]

- Plan establishment of field artillery survey control. [01-2999.97-0403]
- Verify field artillery survey computations. [01-2999.97-0404]

FSO

[STP 6-13II-MQS, Artillery]

- Advise maneuver Cdr on employment of

available fire support assets.

[01-2999.94-0106]

- Plan field artillery support of maneuver units. [01-2999.94-0100]
- Recommend FSCM. [01-299.94.0101]
- Develop an FS plan to support a defensive operation. [01-2660.00-2009]
- Advise the Cdr on the capabilities of available target acquisition assets. [01-3020.00-7002]
- Advise the maneuver Cdr on IFSAS/AFATDS operations. [01-2770.01-0118]
- Advise the maneuver Cdr on employment of COLTs. [01-2840.00-2039]
- Recommend FSCoord measures and coordinate fires. [01-2840.00-2042]
- Apply the FSCoord measures. [01-2840.00-2025]
- Direct the establishment of and verify Cdr's criteria. [01-2770.01-0115]
- Direct the establishment of a fire plan in the IFSAS/AFATDS computer. [01-2770.01-0115]

DS FA Bn HHB 1SG

[STP 21-24-SMCT, Common Tasks]

- Inspect personnel/equipment. [071-328-5301]
- Prepare an oral OPORD. [071-326-5626]
- Prepare a strip map. [551-721-3359]
- Supervise unit preventive medicine and field sanitation procedures. [081-831-0102]
- Conduct OPSEC procedures. [113-573-0002]
- Perform duties as convoy Cdr. [551-721-4326]
- Integrate risk management into mission. [850-001-4001]
- Supervise unit preparation for NBC attack. [031-503-4002]

[STP 6-13B24-SM-TG]

- Prepare and/or defend a unit against an attack. [061-266-4014]

REFERENCES

This component identifies the references and sources used by the author to develop the battlefield function (BF) task list. This component provides users with sources for further information.

Field Manuals (FMs)

6-2	Tactics, Techniques and Procedures for Field Artillery Survey, September 1993
6-20-1	The Field Artillery Cannon Battalion, November 1990
6-20-10	TTP for The Targeting Process, 9 February 1995
6-20-40	Fire Support for Brigade Operations (Heavy), January 1990
6-20-50	Fire Support for Brigade Operations (Light), January 1990
6-40	Tactics, Techniques, and Procedures for Field Artillery Manual Cannon Gunnery, April 1996
22-100	Military Leadership, July 1990
25-100	Training the Force, November 1988
25-101	Battle Focused Training, September 1990
34-130	Intelligence Preparation of the Battlefield, July 1994
63-20	Forward Support Battalion, February 1990
71-3	Armored and Mechanized Infantry Brigade, 8 January 1996
100-5	Operations, June 1993
101-5	Command and Control for Commanders and Staff, "Final Draft" August 1993

Army Training and Evaluation Programs (ARTEPs)

3-117-40-MTP	MTP for Chemical Section and NBC Center, 29 September 1994
6-115-MTP	MTP for Field Artillery Cannon Battalion Headquarters and Headquarters Battery, Headquarters, Headquarters and Service Battery; or Service

Battery, November 1990

- 6-115-20-MTP MTP for the Field Artillery Cannon Battalion Fire Support, January 1990
- 6-037-30 MTP MTP for the Cannon Firing Battery 155-mm, Self Propelled, March 1989
- 71-2- MTP MTP for Tank and Mechanized Infantry Battalion Task Force, October 1988
- 71-3-MTP MTP for the Heavy Brigade Command Group and Staff, October 1988
- 34-245-10-DRILL Drills/Procedures for the Intelligence Section, 31 December 1987

Center for Army Lessons Learned (CALL) Publications

- CALL Bulletin, "News From the Front," April 1994
- CALL NEWSLETTER NO. 90-1, Fire Support for the Maneuver Commander, February 1990
- CALL NEWSLETTER No. 90-8, Special Edition, "Winning in the Desert, Tactics, Techniques and Procedures for Maneuver Commanders," September 1990
- CALL NEWSLETTER No. 91, "Rehearsals," April 1991
- CALL CTC Bulletin 95-11, The Battle Before: A Rehearsal, September 1995
- CALL CTC Bulletin No. 93-4, Lessons and Information, July 1993
- CALL NEWSLETTER No. 93-3, "The Battalion Staff," July 1993
- CALL CTC Bulletin No. 94-1, "Lessons and Information," March 1994
- CALL Bulletin 95-4, "News From the Front," January-February 1995
- CALL NEWSLETTER No. 95-6, "National Training Center's 'Fighting with Fires'"

Soldier's Training Publications (STPs)

- 3-74II-MQS Military Qualification Standards II, Chemical Branch (74), Company Grade Officer's Manual, March 1991
- 6-13II-MQS Military Qualification Standards II, Field Artillery Branch (13), Company Grade Officer's Manual, March 1991

6-13B24-SM-TG	Soldier's Manual and Trainer's Guide, MOS 13B, Cannon Member, Skill Levels 2-3-4, 13 September 1993
6-13F14-SM-TG	Soldier's Manual, Skill Levels 1-2-3-4, and Trainer's Guide, MOS 13F, Fire Support Specialist, 24 September 1993
9-91BCII-MQS	Military Qualification Standards II, Ordinance Branch (91BC), Company Grade Officer's Manual, March 1991
10-76X-SM-TG	MOS 76X (Skill Levels 2-4) Subsistence Supply Specialist, Soldier's Manual and Trainer's Guide, December 1985
10-92A35-SM-TG	MOS 92A (Skill Levels 3-5) Automated Logistical Specialist Soldier's Manual and Trainer's Guide, November 1993
10-92ABDII-MQS	Military Qualification Standard II, Quartermaster (92AB), Company Grade Officers Manual, March 1991
10-92Y24-SM-TG	MOS 92Y (Skill Levels 2-4) Unit Supply Specialist Soldier's Manual and Trainer's Guide, February 1994
10-94B25-SM-TG	MOS 94B (Skill Levels 2-5) Food Service Specialist SM&TG, March 1993
11-25II-MQS	Military Qualification Standards II, Signal Corps (25), Company Grade Officer's Manual, August 1991
21-II-MQS	Military Qualification Standards II, Manual of Common Tasks for Lieutenants and Captains, January 1991
21-24-SMCT	Soldier's Manual of Common Tasks (SMCT) Skill Levels 2-4, 1 October 1992
34-35II-MQS	Military Qualification Standards II, Military Intelligence Branch (35), Company Grade Officer's Manual, September 1991
34-96B14-SM-TG	Soldier's Manual, Skill Levels 1/2/3/4 and Trainer's Guide, MOS 96B, Intelligence Analyst, 7 September 1994
55-88II-MQS	Military Qualification Standards II, Transportation Branch (88), Company Grade Officers

U.S. Army Training and Doctrine Command (TRADOC) Pamphlet (PAM)

11-9

Blueprint of the Battlefield, May 1991

Other References

Battle Command: Leadership and Decision Making for War and Operations Other than War, Battle Command Laboratory, Fort Leavenworth, KS, April 1994

Battle Command Techniques and Procedures: A Commander's Guide for the Coordination and Execution of Battlefield Operating Systems, Battle Command Battle Laboratory, Fort Leavenworth, KS. April 1995

Battlefield Functions (BFs)

BF 15, Task Analysis for Coordinate, Synchronize, and Integrate Fire Support as Accomplished by a Brigade Combat Team, Bartholomew J. McIlroy, Jr., William J. Mullen, III, J. Douglas Dressel and Franklin L. Moses, August 1996

BF 19, Direct and Lead Units During Preparation for the Battle as Accomplished by an Engineer Battalion Supporting a Heavy Brigade, Robert A. Clagg and Martin S. Anderson, in press

BF 20, Direct and Lead Units in Execution of Battle as Accomplished by an Engineer Battalion Supporting a Heavy Brigade, Martin S. Anderson, and Robert A. Clagg, in press

Appendix A

INDEX of BRIGADE COMBAT TEAM BATTLEFIELD FUNCTIONS Grouped By Battlefield Operating System (BOS)

This component lists the thirty-nine (39) battlefield functions (BFs) for each battlefield operating system (BOS) which have been identified as relevant to U.S. Army tactical echelon units. These BFs were identified based on an analysis of Training and Doctrine Command (TRADOC) Pamphlet 11-9, "Blueprint of the Battlefield." The purpose of this component is to depict the BOS and the BF which define each BOS.

INTELLIGENCE	(1)	Conduct intelligence planning.
	(2)	Collect information.
	(3)	Process information.
	(4)	Disseminate intelligence.
MANEUVER	(5)	Conduct tactical movement.
	(6)	Engage enemy with direct fire and maneuver.
AIR DEFENSE	(16)	Take active air defense measures.
	(17)	Take passive air defense measures.
FIRE SUPPORT	(7)	Employ mortars.
	(8)	Employ field artillery.
	(9)	Employ close air support.
	(10)	Conduct electronic collection and electronic attack.
	(11)	Conduct battlefield psychological operations.
	(12)	Employ chemical weapons. ¹
	(13)	Conduct counter target acquisition operations.
	(14)	Employ naval surface fires.
MOBILITY AND SURVIVABILITY	(15)	Coordinate, synchronize and integrate fire support.
	(21)	Overcome obstacles.
	(22)	Enhance movement.
	(23)	Provide countermobility.
	(24)	Enhance physical protection.
	(25)	Provide operations security.
	(26)	Conduct deception operations.
	(27)	Provide NBC defense.

¹ Although U.S. national policy has renounced the use of chemical weapons, this BF is retained because it is a function which might be performed by other nations.

**COMMAND AND
CONTROL**

- (18) Plan for combat operations.
- (19) Direct and lead unit during preparation for the battle.
- (20) Direct and lead units in execution of battle.

**COMBAT SERVICE
SUPPORT**

- (28) Provide transport services.
- (29) Conduct supply operations.
- (30) Provide personnel services.
- (31) Maintain weapons systems and equipment.
- (32) Provide health services.
- (33) Treat and evacuate battlefield casualties.
- (34) Conduct enemy prisoners of war (EPW) operations.
- (35) Conduct law and order operations.
- (36) Conduct civil affairs operations.
- (37) Provide sustainment engineering.
- (38) Evacuate non-combatants from area of operations.
- (39) Provide field services.

Appendix B

STRUCTURE OF BATTLEFIELD FUNCTIONS (BFs) RELEVANT TO BRIGADE OPERATIONS

This component provides a description of each BF and the battlefield operating system (BOS) with which it is aligned. Included with each BF definition is a listing of major doctrinal topics and aspects addressed by the BF. These definitions provide the necessary framework required to understand the focus of each BF. Under most circumstances, heavy brigades will be involved in the accomplishment of some or all aspects of the BF. The involvement can vary from extensive, wherein the BF is a major focus, to minor, wherein the brigade headquarters only furnishes information. In the latter instances, the involvement may not be sufficient to warrant incorporation into a brigade's training program, although the brigade's responsibilities for the function are likely addressed in its SOP for tactical operations (TACSOP). BF definitions were extrapolated from TRADOC Pam 350-7 "Blueprint of the Battlefield," as well as other doctrinal publications relevant to the applicable BF or BOS.

1. **Intelligence BOS** - The ways and means of acquiring, analyzing, and using knowledge of the enemy, weather, and terrain required by a commander in planning, preparing, and conducting combat operations. These BFs are continuous throughout the planning, preparation, and execution phases of the battle.
 - a. **BF (1) Conduct Intelligence Planning** - The developing and coordinating of information relative to the enemy, weather, and terrain prior to and during the development of the unit OPORD; the planning to collect information from battlefield sources and to acquire intelligence from other headquarters. Focus of this BF is the intelligence preparation of the battlefield (IPB). This BF addresses:
 - 1) Reconnaissance and surveillance plan (R&S Plan).
 - 2) Integrated threat templates (e.g., doctrinal, event, input to DST).
 - 3) Terrain and weather analysis.
 - b. **BF (2) Collect Information** - Obtaining information in any manner from the heavy brigade's elements and from sources outside the heavy brigade (e.g., higher headquarters and adjacent units). This BF includes the tasks associated with managing the processes and activities necessary to collect battlefield information which may eventually be used to provide intelligence relative to the enemy, terrain, and weather. This BF addresses:
 - 1) Information collected as a result of the R & S Plan.
 - 2) Continuous information collection and acquisition from all sources.

- c. **BF (3) Process Information** - Converting information into intelligence through collation, evaluation, analysis, integration, and interpretation in a continual process. This BF addresses:
 - 1) Evaluation of threat information.
 - 2) Evaluation of physical environment information.
 - 3) Integration of intelligence information.
 - 4) Development of enemy intentions.
 - 5) Development of targeting information.
 - 6) Preparation of intelligence reports.
 - 7) Update of situational template.
 - 8) Provision of battlefield area reports.
- d. **BF (4) Disseminate Intelligence** - Transmitting of information by any means (verbal, written, electronic, etc.), from one person or place to another to provide timely dissemination of critical intelligence to all appropriate members of the combined arms team. This BF addresses:
 - 1) The sending of processed intelligence in a timely manner to those on the combined arms team who can, by its receipt, take appropriate actions to accomplish the mission. This includes intelligence on the enemy, terrain, and weather.
 - 2) The sending of raw intelligence directly from those responsible for reconnaissance and surveillance to the commander should that raw intelligence be time sensitive (and not be subject to receipt and processing by intelligence analysts).
 - 3) Dissemination of battlefield reports.
- 2. **Maneuver BOS** - The employment of direct fire weapons, platforms, and systems through movement and fire and maneuver to achieve a position of advantage in respect to enemy ground forces, in order to accomplish the mission. The direct fire weapons are tank guns, BFV 25mm, anti-tank guns and rockets, attack helicopter guns and rockets, small arms, crew-served weapons, and directed energy weapons systems.
 - a. **BF (5) Conduct Tactical Movement** - Planning for and directing the positioning of direct fire weapons systems relative to the enemy to secure or retain positional advantage, making full use of terrain and formations. Tactical movement occurs when

contact with the enemy is likely or imminent but direct fire engagement has not yet occurred. Units supporting maneuver units are included. This BF addresses:

- 1) Subordinate element OPORD preparation and dissemination.
 - 2) Preparation for movement.
 - 3) Movement, both mounted and dismounted, and on and off road.
 - 4) Closure of movement to tactical assembly area or tactical positions.
 - 5) Navigation.
 - 6) Air movement.
- b. **BF (6) Engage Enemy with Direct Fire and Maneuver** - Planning for and directing elements in ground combat with the enemy using direct fire and/or close combat in order to destroy the enemy or cause him to withdraw. This BF relates only to those direct fire weapons systems associated with the maneuver BOS. This BF addresses:
- 1) Preparation of engagement areas.
 - 2) Rehearsals of battle plans.
 - 3) Prevention of fratricide.
 - 4) Conduct of close combat.
 - 5) Integration of direct fire with maneuver.
 - 6) Control of terrain.
 - 7) Consolidation and reorganization.
3. **Fire Support BOS** - The collective, coordinated, and synchronized use of target acquisition data, indirect fire weapons, armed aircraft (less attack helicopters) and other lethal and non-lethal means against ground targets in support of maneuver force operations and to achieve the commander's intent and scheme of maneuver. The fire support BOS addresses these weapons: mortars, field artillery, close air support, electronic measures, and naval surface fires.
- a. **BF (7) Employ Mortars** - Planning for and employment of mortars by the maneuver unit to place fires on the enemy or terrain to support the commander's concept and intent.

- b. **BF (8) Employ Field Artillery** - Planning for and directing of indirect artillery fires to be placed on the enemy or terrain to support the commander's concept and intent. The fire support coordination tasks necessary to integrate the field artillery and the maneuver units are the primary focus. This BF does not address those field artillery tasks associated directly with those actions taken by the batteries of the artillery battalion in the conduct of their support mission such as FDC operations, gun operations, etc. This BF addresses:
 - 1) Fire support - maneuver unit rehearsals.
 - 2) FSE operations during the preparation and execution phases of the battle.
 - 3) Positioning and movement within the maneuver unit sector or zone.
 - 4) Indirect fire missions in support of maneuver commander's concept and intent.
- c. **BF (9) Employ Close Air Support** - Planning for, requesting, and employing armed aircraft (less attack helicopters) in coordination with other fire support (lethal and non-lethal) against ground targets in support of the brigade commander's concept and intent. This BF addresses:
 - 1) Air-ground attack requests.
 - 2) Air space coordination and management.
 - 3) Air liaison officer, forward air controller; other Army fire support coordination officers, USN/USMC brigade team commander, supporting arms liaison team (SALT) and firepower control team (FCT) tasks that enable air-to-ground attacks.
- d. **BF (10) Conduct Electronic Collection and Jamming¹** - Planning for and directing actions taken to deny the enemy effective command, control, and communications of his own tactical force in support of maneuver commander's concept and intent. This BF includes jamming, deception, and collection.
- e. **BF (11) Conduct Battlefield Psychological Operations** - Planning for and directing the conduct or support of psychological operations (when psychological operations units are available) as an integral part of combat operations to bring psychological pressure to bear on enemy forces and civilians under enemy control in the battle area, to assist in the achievement of tactical objectives in support of the brigade commander's concept and intent.

¹ Title and structure change to "Conduct electronic collection and electronic attack" are presently under consideration.

- f. ~~**BF (12) Employ Chemical Weapons**~~² - Employing chemical agents or other means to degrade enemy capabilities in support of the brigade commander's concept and intent.
 - g. **BF (13) Conduct Counter Target Acquisition Operations** - Planning for and directing the suppression (e.g., using smoke or dazzling illumination) to degrade enemy direct observation, optics, radar, sensors, electronic DF equipment, and imaging systems in support of the commander's concept and intent.
 - h. **BF (14) Employ Naval Surface Fires** - Planning for and directing naval gunfire in support of the maneuver commander's concept and intent.
 - i. **BF (15) Coordinate, Synchronize, and Integrate Fire Support** - Coordinating all fire support means in support of the maneuver commanders' concepts and intents. The BF integrates BF 7-14.
4. **Air Defense BOS** - The means and measures organic or assigned to the maneuver commander which, when employed successfully, will nullify or reduce the effectiveness of attack by hostile aircraft or missiles after they are airborne.
- a. **BF (16) Take Active Air Defense Measures** - Planning for and directing the application of firepower to destroy enemy air targets. This BF encompasses the coordinating tasks which enable the commander to successfully employ any attached or assigned air defense weapons system, as well as the tasks necessary to employ all organic weapons systems against enemy air targets. This BF addresses:
 - 1) Employment of air defense artillery guns and missiles.
 - 2) Employment of maneuver unit weapons systems such as small arms, automatic weapons, BFV 25 mm and TOW missiles, and tank main gun against enemy air.
 - 3) Airspace management.
 - 4) Early warning.
 - b. **BF (17) Take Passive Air Defense Measures** - Planning for and directing the protection of the unit from enemy air by means other than weapons. This BF addresses:
 - 1) Early warning.
 - 2) Dispersion.

² Although U.S. national policy has renounced the use of chemical weapons, this BF is retained because it is a function which might be performed by other nations.

- 3) Deception.
-
5. **Command and Control BOS** - The ways and means a commander exercises authority and direction over organic and assigned combat power in the accomplishment of the mission.
 - a. **BF (18) Plan for Combat Operations** - The integration of all members of the unit in the coordinated development of an operations order which will guide the activities of the unit in conducting combat operations to accomplish assigned missions. The product/outcome of this BF is a briefed, understood OPORD. This BF addresses:
 - 1) Receipt and analysis of higher HQ OPORD.
 - 2) Issuance of warning order.
 - 3) Restated mission statement.
 - 4) Commander's estimate process/troop leading procedures.
 - 5) Commander's guidance.
 - 6) Mission analysis (includes course of action development).
 - 7) Decision brief to commander.
 - 8) Development of a synchronized OPORD.
 - 9) Reproduction and distribution of OPORD to all participants.
 - 10) Briefing of OPORD; understanding of order by participants.
 - 11) FRAGO planning and issue.
 - b. **BF (19) Direct and Lead Unit during Preparation for the Battle** - The ways and means to prepare the unit so that it is ready to support the commander's concept and intent. This BF addresses:
 - 1) Commander's actions and decisions.
 - 2) Directing preparation for the battle.
 - 3) Issuing orders.
 - 4) Communicating information.

- 5) Confirmation briefs and backbriefs.
 - 6) Rehearsals.
 - 7) Maintaining and updating information and force status.
 - 8) Decisions to act or change ongoing actions.
 - 9) Confirming IPB through the reconnaissance effort.
 - 10) Determining actions to implement decisions.
 - 11) Synchronizing preparation (e.g., management of time).
 - 12) TOC operations (e.g., staff integration).
 - 13) Second in command (2IC) responsibilities.
 - 14) Continuous and sustained operations.
 - 15) Communications (e.g., planning, installation and operation of system, management, site election).
- c. **BF (20) Direct and Lead Units in Execution of Battle** - The ways and means to command and control the unit's execution of the battle plan to accomplish the commander's concept and intent. This BF addresses:
- 1) Commander's actions and decisions.
 - 2) Directing the conduct of the battle.
 - 3) Issuing orders.
 - 4) Information distribution.
 - 5) Synchronizing tactical operations (e.g., use of DST).
 - 6) TOC operations (includes CP displacement, security, survivability, battle tracking).
 - 7) Continuity of command (e.g., C2 redundancy).
 - 8) Second in command (2IC) responsibilities.
 - 9) Continuous and sustained operations.

10) Consolidation and reorganization.

6. **Mobility and Survivability BOS** - The ways and means that permit freedom of movement, relative to the enemy, while retaining the force's ability to fulfill its primary mission, as well as the measures the force takes to remain viable and functional by protection from the effects of enemy weapons systems and natural occurrences.
 - a. **BF (21) Overcome Obstacles** - Planning for and directing actions to remove or clear/reduce natural and man-made obstacles.
 - b. **BF (22) Enhance movement** - Planning for and coordinating elements providing mobility for the unit in its area of operations. This BF addresses:
 - 1) Construction and repair of combat roads and trails.*
 - 2) Facilitating movement on routes. (This includes control of road traffic and control of refugees and stragglers.)*
 - 3) Tracking status of routes.*
 - 4) Host nation support.*
 - c. **BF (23) Provide Countermobility** - Planning for and directing actions to delay, channel, or stop enemy offensive movement consistent with the commander's concept and intent by enhancing the effectiveness of friendly direct and indirect weapons systems.
 - d. **BF (24) Enhance Physical Protection** - Planning for and directing actions that provide protection of friendly forces on the battlefield by enhancing the physical protection of personnel, equipment and weapons systems, and supplies.
 - e. **BF (25) Provide Operations Security** - Planning for and directing action to deny information to the enemy about friendly capabilities and intentions by identifying, controlling, and protecting indicators associated with planning and conducting military operations. This BF addresses:
 - 1) Analysis to determine key assets and threats to them.
 - 2) Monitoring of implementation of OPSEC measures.
 - 3) Physical security measures.

* Normally accomplished by units supporting the division.

4) Signal security.

5) Electronic security.

f. **BF (26) Conduct Deception Operations** - Taking actions in accordance with the division's or corps' deception plan to mask the objectives of tactical operations in order to delay effective enemy reaction. This BF addresses:

1) Physical deception.

2) Electronic deception.

g. **BF (27) Provide NBC Defense** - The avoidance of contamination; the protection of people, objects or areas from chemical or biological agents by absorbing, destroying, neutralizing, or otherwise rendering harmless or removing such agents; and the removal of radioactive material. This BF addresses:

1) Decontamination of individual soldiers and equipment.

2) Decontamination of weapon systems and supplies.

3) Hasty and deliberate decontamination.

4) Avoidance of contaminated areas.

5) NBC reconnaissance.

6) NBC defensive measures.

7) NBC warning.

7. **Combat Service Support BOS** - The support, assistance, and service provided to sustain forces, primarily in the area of logistics, personnel services, and health services.

a. **BF (28) Provide Transport Services** - Planning for and directing provision or coordination for transportation which will assure sustainment support operations in support of the unit. This BF addresses:

1) Movement of cargo, equipment, and personnel by surface or air.

2) Loading, transloading, and unloading material and supplies.

3) Reporting status.

- b. **BF (29) Conduct Supply Operations** - Planning for and directing provision of the items necessary to equip, maintain, and operate the force during the preparation and execution phases of the battle. This BF addresses:
 - 1) Requesting, receiving, procuring, storing, protecting, relocating, and issuing supplies to the specific elements of the force.
 - 2) Providing munitions to weapons systems.
 - 3) Providing fuel and petroleum products to equipment and weapons systems.
 - 4) Reporting status.
- c. **BF (30) Provide Personnel Services** - Planning for and directing all personnel-related matters to sustain the force. This BF addresses:
 - 1) Personnel administrative services.
 - a) Replacement, casualty reporting.
 - b) Awards and decorations.
 - c) Postal operations.
 - d) Promotions, reductions.
 - 2) Financial services.
 - 3) Unit ministry team operations.
 - 4) Legal services.
 - 5) Public affairs services.
 - 6) Preservation of the force through safety.
 - 7) Management of stress.
 - 8) Reporting status.
- d. **BF (31) Maintain Weapons Systems and Equipment** - Planning for and directing preservation and repair of weapons systems and equipment. This BF includes the provision of repair parts and end items to all members of the unit before, during and

after the battle. Included also is doctrinal echeloning of maintenance (organization, DS, GS). This BF addresses:

- 1) Recovery.
 - 2) Diagnosis, substitution, exchange, repair and return of equipment and weapons systems to the combined arms force.
 - 3) Reporting status.
- e. **BF (32) Provide Health Services** - Planning for, directing and coordinating health services regardless of location, to promote, improve, conserve or restore the mental or physical well-being of individuals or groups. This BF addresses:
- 1) Preventive medicine.
 - 2) Field sanitation.
 - 3) Mental health.
- f. **BF (33) Treat and Evacuate Battlefield Casualties** - Planning for and directing the application of medical procedures on battlefield casualties beginning with "buddy aid" through treatment by trained medical personnel. The BF includes movement of casualties from the forward edge of the battlefield back to division-level medical facilities. This BF addresses:
- 1) Triage of battlefield casualties.
 - 2) Treatment and movement of casualties to rear (MEDEVAC).
 - 3) Evacuation.
 - 4) Handling and processing the remains of soldiers who have died of wounds.
 - 5) Reporting status.
- g. **BF (34) Conduct Enemy Prisoners of War (EPW) Operations** - Planning for and directing the collection, processing, evacuation, and safeguarding of enemy prisoners of war. This BF addresses:
- 1) Collecting and evacuating EPW.
 - 2) Searching, segregating, safeguarding, silencing, and rapid rearward movement of EPW.

- h. **BF (35) Conduct Law and Order Operations** - Enforcing laws and regulations and maintaining of unit and personnel discipline.
- i. **BF (36) Conduct Civil Affairs Operations** - Planning for, directing, and/or coordinating assigned tasks to conduct activities which encompass the relationship between the military forces and civil authorities and the citizens in a friendly or occupied country or area when U.S. military forces are present.
- j. **BF (37) Provide Sustainment Engineering** - Planning for and coordinating the actions of elements (when in the unit area), providing repair and construction of facilities and lines of communication. This BF addresses:
 - 1) Rear area restoration.*
 - 2) Construction and maintenance of lines of communication (roads, railroads, ports, airfields).*
 - 3) Construction support:
 - a) Marshaling, distribution and storage facilities.*
 - b) Pipelines.*
 - c) Fixed facilities.*
 - d) Well drilling.*
 - e) Dismantlement of fortifications.*
- k. **BF (38) Evacuate Non-combatants from Area of Operations** - Planning for and directing the unit's participation in actions to use available military and host-nation resources for the evacuation of US forces, dependents, US government civilian employees, and private citizens (US and other). This BF addresses:
 - 1) Medical support.
 - 2) Transportation.
 - 3) Security.
 - 4) Preparation of temporary shelters.

* Normally accomplished by units supporting the division.

- 5) Operation of clothing exchange facilities.
 - 6) Operation of bathing facilities.
 - 7) Graves registration.
 - 8) Laundry.
 - 9) Feeding.
1. **BF (39) Provide Field Services** - Planning for and coordinating the provision of service logistics functions by CSS elements*. This BF addresses:
- 1) Clothing exchange.
 - 2) Shower facilities.
 - 3) Graves registration.
 - 4) Laundry and clothes renovation.
 - 5) Bakeries.
 - 6) Feeding (rations supply, kitchens).
 - 7) Salvage.

* Normally accomplished by units supporting the division.

Appendix C

BFs LISTED BY ECHELON

This component depicts the identification of BFs to the echelon/type unit based on previous research and analysis.

INTELLIGENCE BOS		Bn TF	Bde	FA Bn	Eng Bn	FS Bn	ADA Btry
(1)	Conduct Intelligence Planning	X	X	X	X	X	
(2)	Collect Information	X	X	X	X	X	X
(3)	Process Information	X	X	X	X	X	X
(4)	Disseminate Information	X	X	X	X	X	X

MANEUVER BOS		Bn TF	Bde	FA Bn	Eng Bn	FS Bn	ADA Btry
(5)	Conduct Tactical Movement	X	X	X	X	X	X
(6)	Engage the Enemy with Direct Fire and Maneuver	X	X ¹				

FIRE SUPPORT BOS		Bn TF	Bde	FA Bn	Eng Bn	FS Bn	ADA Btry
(7)	Employ Mortars	X	X				
(8)	Employ Field Artillery	X	X	X	X	X	X
(9)	Employ Close Air Support	X	X				

¹ BF 6, as defined, concerns how units will engage the enemy through maneuver and direct fires. The function is performed by the element directly controlling the direct fire systems. Initial analysis indicates that this is accomplished by maneuver battalions, such as a mechanized infantry or armor Bn TF, and attack helicopter battalions. The brigade commander and brigade staff's involvement in the engagement of the enemy is through direction of the subordinate battalions. Hence, the brigade's control is not direct to the systems involved. Therefore, the brigade involvement is described within the context of BF 18, 19, and 20. Further analysis is required.

FIRE SUPPORT BOS (cont.)	Bn TF	Bde	FA Bn	Eng Bn	FS Bn	ADA Btry
(10) Conduct Electronic Collection and Jamming ²						
(11) Conduct Battlefield Psychological Operations						
(12) Employ Chemical Weapons³						
(13) Conduct Counter Target Acquisition Operations			X			
(14) Employ Naval Surface Fires	X	X				
(15) Coordinate, Synchronize, and Integrate Fire Support	X	X	X	X	X	

AIR DEFENSE BOS	Bn TF	Bde	FA Bn	Eng Bn	FS Bn	ADA Btry
(16) Take Active Air Defense Measures	X	X				X
(17) Take Passive Air Defense Measures	X	X	X	X	X	X

COMMAND AND CONTROL BOS	Bn TF	Bde	FA Bn	Eng Bn	FS Bn	ADA Btry⁴
(18) Plan for Combat Operations	X	X	X	X	X	
(19) Direct and Lead Units During Preparation for Battle	X	X	X	X	X	
(20) Direct and Lead Units in Execution of Battle	X	X	X	X	X	

² Title and focus change to "Conduct electronic collection and electronic attack" are presently under consideration.

³ Although U.S. national policy has renounced the use of chemical weapons, this BF is retained because it is a function which could be performed by other nations.

⁴ The battle phases of plan, prepare, and execute are inherent to the ADA battery's performance of BF 16, Take Active Air Defense Measures.

MOBILITY AND SURVIVABILITY BOS	Bn TF	Bde	FA Bn	Eng Bn	FS Bn	ADA Btry
(21) Overcome Obstacles	X	X		X		
(22) Enhance Movement				X		
(23) Provide Countermobility	X	X		X		
(24) Enhance Physical Protection	X	X	X	X	X	X
(25) Provide Operations Security	X	X	X	X	X	X
(26) Conduct Deception Operations						
(27) Provide NBC Defense	X	X	X	X	X	X

COMBAT SERVICE SUPPORT BOS	Bn TF	Bde	FA Bn	Eng Bn	FS Bn	ADA Btry
(28) Provide Transport Services	X	X	X	X	X	
(29) Conduct Supply Operations	X	X	X	X	X	X
(30) Provide Personnel Services	X	X	X	X	X	
(31) Maintain Weapons Systems and Equipment	X	X	X	X	X	X
(32) Provide Health Services		X			X	
(33) Treat and Evacuate Battlefield Casualties	X	X	X	X	X	X
(34) Conduct Enemy Prisoner of War Operations		X			X	
(35) Conduct Law and Order Operations						
(36) Conduct Civil Affairs Operations						
(37) Provide Sustainment Engineering						
(38) Evacuate Non-combatants from Area of Operations						
(39) Provide Field Services					X	

Appendix D

USER'S GUIDE

This component is designed to facilitate use of the function analysis. The examples are based on the function analysis (FA) of BF 18--Plan for Combat Operations--as performed by the heavy brigade.

Section 1 - Background on Functional Approach to Training and Battlefield Functions

Given the task-based nature of Army training, the tools for identifying, structuring, and organizing tasks critical for combat effectiveness are essential to realizing goals of Army training for the 21st century. Providing such tools has been a persistent effort in structuring assessment and planning of collective training. Army Training and Evaluation Program Mission Training Plans (ARTEP-MTPs), which list tasks by mission, represent one approach to provide that structure. A complementary approach has emerged in the use of functional areas.

Several initiatives have considered tasks in relation to functional areas rather than missions. One such approach was adopted at the Combat Training Centers (CTCs). The specific approach developed in the mid-1970s used Battlefield Operating Systems (BOSs) as the framework for after action reviews (AARs) and take home packages. The BOSs are seven functional areas which encompass tactical operations.

In addition, to enhance the utility of the BOS structure, the U.S. Army Training and Doctrine Command (TRADOC) developed the Blueprint of the Battlefield. That work used the BOS structure as a framework to describe the tactical level of war in terms of operating systems, functions, and generic tasks. While the functional hierarchy in the Blueprint of the Battlefield provided finer granularity than the BOS, the Blueprint of the Battlefield did not represent battlefield processes, critical sequences of events, procedural steps, and many of the tasks that must be accomplished.

This research product is part of an effort to improve further the functional structure for planning and assessing collective training through the identification and analysis of Battlefield Functions (BFs). Like the Blueprint of the Battlefield, the BFs orient on functions (activities and processes that occur over time) while retaining granularity that supports task-based training. The BF analyses extend the Blueprint of the Battlefield in two ways:

- Identify relationships among BOSs, tasks, echelons, and people required to achieve identified outcomes, thus improving representation of battlefield processes and sequences of events.
- Provide explicit ties to tasks derived from ARTEP-MTPs and doctrine, tactics, techniques, and procedures described in doctrinal manuals, applied at CTCs, or identified by

experienced field commanders, thus improving representation of procedural steps and tasks that must be accomplished.

FAs of BFs have been conducted at a level of detail that supports a functional approach to training. The functional approach uses battlefield functions performed by units as the basis for assessing proficiency and planning training. The BF FAs provide content and a framework to apply the functional approach to training. Thirty-nine (39) BFs (Appendix A) are relevant to tactical operations at echelons from battalion through corps. Association of specific BFs to particular type units indicates that those BFs are germane to the unit's training program.

Section 2 - Overview of Components to a BF Function Analysis

The BF FA conducted as part of this project (Innovative Tools and Techniques for Brigade and Below Staff Training (ITTBBST)) contains seventeen (17) components including this User's Guide. The components allow BF FA users the capability to use the BF FA for a variety of purposes, some of which are described in Section 3 below. The title and a brief description of each BF FA component follow.

Overview: Information is provided concerning the presentation of the BF FA components, the table of organization and equipment (TO&E) of the type unit for which the BF FA is relevant, and the context in which the FA was developed. The information provides an overview of the analytical approach used for the FA.

Purpose and Outcomes: The overall end result which the BF is supposed to accomplish, termed the purpose, is identified. This component also identifies the endstates or bottom line results necessary to achieve the purpose, termed outcomes.

Flow Charts by Battle Phase (Plan, Prepare, Execute): This graphical description portrays the sequence of BF tasks within the framework of tactical battle phases (i.e., planning, preparation, execution). This component describes the flow of tasks during each battle phase, the vertical task linkages (to higher and lower echelon units), and horizontal linkages to other BFs for the echelon being analyzed. It also depicts information flow which affects the tasks.

Task Linkages to Other BFs/Units: Tasks performed in other BFs or by other units are described as they relate (i.e., are linked) to the tasks of the BF being analyzed. These descriptions provide verbal details of the relationships portrayed graphically by the Flow Charts. The purpose of this component is to allow the user to incorporate related tasks and participants into a training exercise for this BF. Tasks which link to this analysis have been extracted for BFs or units for which FAs have been accomplished and extrapolated for FAs which have not yet been developed.

Key Participants by Task: The participants required to perform the tasks are identified. Identification is based on the appropriate echelon/type unit TO&E. It includes special staff members who are critical for task accomplishment.

Key Inputs and Outputs: The critical information required and generated by participants to successfully accomplish the BF is identified. Where information results from the performance of the BF tasks, BF information output is identified. One BF's information output normally is provided as another BF's input. Critical input and output are organized by the specific part of the doctrinal product or means used to communicate it. The source of critical information is specific only to the BF echelon and function being analyzed, and is not intended to reflect all the information the product may contain. The linkages of inputs and outputs to specific tasks are depicted in the Flow Charts component.

Task List Summary: The tasks which are described in detail in the Task List are summarized and numbered. The numbers allow cross referencing among BF FA components.

Task Lists: Tasks and supporting tasks necessary to perform the function are listed by battle phase. Normally, the task identifies the primary participants responsible for performing the tasks. The tasks have been extracted from the appropriate ARTEP-MTPs, echelon and functional area field manuals (FMs), and proponent school special texts. The specific sources of references for each task and subtask are shown in brackets [] following the task. Tasks derived from ARTEP-MTPs are referenced with the ARTEP-MTP number and task number, such as [ARTEP 5-145-MTP, Task 05-1-0002/1]. Tasks derived from FMs are referenced with the FM number and page number, such as [FM 5-71-3, p. 2-11]. Tasks identified during interviews with TRADOC school proponent subject matter experts (SMEs), CTC Operations Groups, and Army Forces Command units are referenced as field notes (FN) and the source is reflected, such as [FN-NTC CSS OCs]. Tasks derived from the Center for Army Lessons Learned (CALL) are referenced with the notation LL for lessons learned; the CALL publication number and page number are included, such as [LL-CALL Newsletter 95-6, p. 16]. In some cases, the analysis of the BF resulted in identification of tasks for which no doctrinal references could be identified. Such tasks were selected based on author experience and relevant doctrine. These tasks are referenced as author notes [AN]. The references facilitate review of original source material for further detail and context.

Tasks Organized by Outcomes: Tasks and supporting tasks necessary to perform the function are listed by outcome. The component supports analysis of performance related to outcomes to identify tasks for sustainment or remediation training.

Lessons Learned Integrated into the Task List: The lessons learned extracted from the CALL publications relevant to performing this BF are identified. They are organized and listed by the appropriate task from the Task List component. The purpose of this

component is to provide the user with recent tactics, techniques, and procedures (TTP) associated with the performance of the tasks in this BF.

Gate Tasks: Critical individual or collective tasks which BF participants must be able to perform prior to engaging in the identified BF tasks are listed so that the training can be conducted efficiently and safely.

References: The references and sources used by the analyst are identified.

Index of Brigade Combat Team Battlefield Functions: The thirty-nine (39) BFs relevant to Army tactical echelon units, organized by the BOS they compose, as derived from TRADOC Pamphlet 11-9, Blueprint of the Battlefield, are identified.

Structure of Battlefield Functions Relevant to Brigade Operations: Definitions for the 39 BFs and BOSs they compose are provided.

BFs Listed by Echelon: The occurrences of BFs relevant to training according to echelon/type units are listed. This list is subject to change as research into the relevance of functions continues.

User's Guide: Descriptions are provided of the background of BFs and the Functional Approach to training (Section 1), the components of a BF FA (in this section), and approaches to exploit the flexibility of the BF FA to support multiple Army uses and users (Section 3).

Acronyms and Abbreviations: The acronyms and abbreviations used in the analysis are listed. The acronyms and abbreviations were taken from relevant doctrinal references.

Section 3 - Use of the BF Function Analysis

The analysis of a function contained in each BF FA can support a variety of purposes. General purposes and information needs will be suggested for force developers, materiel developers, doctrine developers, training developers, and unit commanders.

- Force Developers: Develop personnel systems and organizational structures to support the force. Purpose and Outcomes and Task Lists components, for example, could support identification of required capabilities and tasks that a particular unit or organization must be able to perform. The Flow Charts component could support delineation of a new organizational design.
- Materiel Developers: Develop requirements for new systems to ease performance activities of soldiers and to accomplish new battlefield requirements. Through the identification of requirements, new technologies and processes can be applied to support force needs. The

Flow Charts component, for example, could be used to illustrate opportunities to revise procedures to take advantage of enhancements in areas such as information dissemination.

- Doctrine Developers: Develop new and modify existing doctrine to integrate emerging technologies and to implement changing Army missions and priorities. TTP will evolve to meet new battlefield conditions and requirements as well as to guide combined arms, joint service, and multinational operations. The emphasis in BF FAs on interrelationships can identify gaps in task coverage which should be addressed through revisions to publications such as ARTEP-MTPs.
- Training Developers: Develop new and modify existing training programs to support new doctrine, emerging technologies, changes in organization, and reduced resources and training environments. Potential uses of a BF FA to support areas such as development of training support packages (TSP) and development of training aids, devices, simulators, and simulations (TADSS) are discussed in Section 4.
- Unit Commanders: Assess training effectiveness, develop training plans, and execute training. BF FA support for training assessment and planning training events is discussed in Section 4.

Developers and commanders often begin by performing or examining one or more front end analyses (FEAs) to gain an understanding of a relevant issue. Whether they perform FEAs themselves or draw from available analyses (like the BF FAs), information is sought on many topics. Likely topics include the following (with relevant BF FA components):

- What are the objectives/missions of the system? (Purpose and Outcomes)
- What are the vertical and horizontal linkages between elements, and what are the information inputs and outputs associated with these? (Flow Charts, Tasks Linked to Other BFs/Units, and Key Inputs and Outputs)
- What are the processes and tasks being performed within each element? (Task Lists, Tasks Organized by Outcomes, and Flow Charts)
- Who are the players and/or target audience? (Key Participants by Task)
- What enabling and objective knowledge and skills are required? (Gate Tasks)
- Are there any experiences and lessons learned that would be helpful? (Task Lists and Lessons Learned Integrated into the Task List)

Two detailed examples of BF FA usage are presented in Section 4 below. These examples demonstrate, first, how unit commanders and, second, how training developers can use BF FAs.

The examples should serve as a guide for potential BF FA users in that generic information within the BF FAs is transferable to the other applications.

Section 4 - Unit Commander and Training Developer Use of a BF Task Analysis

Unit Commanders

Unit commanders use published Army doctrine as contained in FM 25-100, Training the Force (November 1988), and FM 25-101, Battle Focused Training (September 1990) to assess training effectiveness and to plan training events. The BF FAs provide relevant information for assessment and planning within the intent of those documents. The added information supports functional training which uses proficiency related to functions as the basis for identifying tasks to be trained and structuring training on those tasks. The BF FAs supplement the training and assessment systems and processes already in use by commanders.

1. Conduct Training Assessment

The commander assesses the mission essential task list (METL) to identify functions that require attention, to select outcomes for training focus, and to provide specific guidance for training. This functional training assessment allows the commander to perform an analysis across several layers with a successively narrow focus:

- a. METL tasks.
- b. Each BOS for each METL task that requires remediation or sustainment.
- c. Relevant BFs for each BOS that requires remediation or sustainment.
- d. Relevant outcomes for each BF that requires remediation or sustainment.

The commander assesses BF performance in the context of the unit METL and the BOS by using the Purpose and Outcomes component. To support the assessment, commanders could develop and complete a worksheet which relates BFs and the outcomes to the METL and BOS, as depicted in Figure D-1, which presents a completed assessment worksheet for BF 18.

BF 18 Outcomes (extracted from the function analysis):

1. Complete, concise, feasible, suitable, acceptable, and tactically sound brigade orders that conform to doctrinal standards are issued.
2. Brigade orders are received in no more than 1/3 of the available time and understood by key participants and subordinates.
3. Sufficient hard copies of the brigade order and all key accompanying documents are provided to key personnel in accordance with TSOP.
4. Brigade operations, command, and control continue during planning process.

Mission Essential Tasks	CURRENT TRAINING STATUS					Overall METL Status
	BOS: Command and Control					
	BF: 18- Plan for Combat Operations					
	Outcomes	1	2	3	4	
Defend		P	P	T	P	P
	<u>Outcome 1:</u> OPORD generally very good; need more detail on control measures (excessive risk of fratricide). <u>Outcome 2:</u> Too slow getting information to supporting battalions--FSB especially needs support requirements earlier. <u>Outcome 3:</u> Dissemination is very smooth. <u>Outcome 4:</u> Weak communications between main CP and adjacent units.					
Attack; Movement to Contact		P	U	T	P	P
	<u>Outcome 1:</u> Accuracy of graphics questionable--MCOO inaccurate or unclear--not sure which, may be both. <u>Outcome 2:</u> Adjacent units never received initial WARNO. <u>Outcome 3:</u> OPORD distribution continued to be a strength. <u>Outcome 4:</u> Rear CP: SITMAP and information displays of tactical situation were not current.					
Overall BF Status: BF 18 = P				BOS Status = P		

Note: Italics indicate entries made by hypothetical commander.

Figure D-1. Assessment worksheet for heavy brigade performance of BF 18.

2. Plan Training Events

The BF FA supports four steps related to planning a training event. The use of BF FAs to perform each of these tasks is described below.

a. Selecting Tasks and Supporting Tasks To Be Trained

1) Selection of tasks by outcome or battle phase. When the training assessment identifies outcomes to be achieved, trainers can focus their attention on particular tasks that support the outcome. This process can be streamlined by referring to the Tasks Organized by Outcomes component of a BF FA. The tasks relevant to each outcomes for the BF 18 FA are shown in Figure D-2. While many of the tasks are required by more than one outcome, the supporting tasks will usually vary between the outcomes.

If trainers have no basis for identifying an outcome within the BF or if the training is to focus on a single battle phase, they can select tasks from the Task List Summary component. For most BFs, this component is organized by the battle phases--plan, prepare, and execute--supported by the Flow Chart. The exceptions to that organization are BFs 1 through 4, which cover the Intelligence BOS, and BFs 18 through 20, which cover the command and control BOS by battle phase. The Intelligence BFs reflect the continuous nature of the intelligence cycle.

BF 18 Outcomes (OC):

1. Complete, concise, feasible, suitable, acceptable, and tactically sound brigade orders that conform to doctrinal standards are issued.
2. Brigade orders are received in no more than 1/3 of the available time and understood by key participants and subordinates.
3. Sufficient hard copies of the brigade order and all key accompanying documents are provided to key personnel in accordance with TSOP.
4. Brigade operations, command, and control continue during planning process.

Tasks (from the Task List)	OC 1	OC 2	OC 3	OC 4
1. The brigade commander and staff direct and lead the brigade during planning for the battle.				X
2. The brigade receives an order initiating a new mission from higher headquarters.	X	X		
3. The brigade commander and staff conduct mission analysis.	X	X		
4. The brigade executive officer directs the staff in the preparation and issuance of a brigade warning order.	X			
5. The brigade commander issues initial planning guidance.	X	X		
6. The brigade commander and staff prepare estimates.	X			
7. The brigade commander and staff develop course(s) of action.	X			
8. The brigade commander and staff analyze course(s) of action.	X			
9. The brigade staff compares course(s) of action.	X			
10. The brigade commander announces decision.	X			
11. The brigade staff prepares the operations order.	X	X	X	
12. The brigade commander and staff issue the operations order.	X	X	X	

Figure D-2. Overview of tasks by outcomes for BF 18 FA.

2) Selection of supporting tasks. Trainers must also select supporting tasks. Supporting tasks are blocks of performance required by the task. Each task and supporting task is structured to describe actions to be performed (e.g., steps) or the end states of the task (i.e., aspects of the standard). The detailed description for each task and supporting task is contained in the Task List component. An excerpt from that component of the BF 18 FA is shown in Figure D-3.

5. **The brigade commander issues initial planning guidance.** [FM 101-5, Chap 4, p. 4-15]
- a. The brigade commander develops planning guidance: [FM 101-5, p. 4-16; FM 71-3, p. 3-3]
 - 1) Using the results of his own mission analysis and his METT-T assessment. [FM 101-5, p. 4-16]
 - 2) Using the results of the brigade staff's mission analysis. [FM 6-20-40, p. 2-1; FM 6-20-50, p. 2-1; FM 6-20-10, p. 1-5; FN-JRTC; FN-194 AR]
 - b. The brigade XO prepares the brigade staff to receive the brigade commander's guidance. [FM 101-5, p. 4-15; ARTEP 71-3-MTP, Task 71-3-0001/2]
 - 1) Determines who must be present at the commander's guidance briefing, if not SOP (e.g., engineer battalion Cdr, FSCoord, MP platoon leader).
 - 2) Ensures staff is prepared to take notes on guidance issued (depending on the level of detail and specificity of guidance).
 - c. The brigade commander issues planning guidance to the brigade staff, which may include: [FM 101-5, p. 4-17; FM 6-20-40, p. 2-1, 2-3; FM 6-20-50, p. 2-1, 2-3; FM 6-20-10, p. 1-7; ARTEP 71-3 MTP, Task 71-3-0001/3]
 - 1) Enemy COA. [FM 101-5, p. 4-17]
 - 2) Restated mission. [FM 101-5, p. 4-18]

Figure D-3. Example of supporting tasks extracted from the Task List of BF 18 FA.

3) **Identification of references.** As Figure D-3 also illustrates, the doctrinal source (publication number and task number or page number), in brackets, is included with the listing of each task and supporting task. Trainers can refer to the References component to determine the doctrinal publication title and publication date. They can then refer to doctrinal source material for further detail and context, if desired. Figure D-4 provides examples taken from the References component of BF 18.

Field Manuals (FMs)	
6-20-40	Tactics, Techniques, and Procedures for Fire Support for Brigade Operations (Heavy)
6-20-50	Tactics, Techniques, and Procedures for Fire Support for Brigade Operations (Light)
71-3	The Armored and Mechanized Infantry Brigade
101-5	Command and Control for Commanders and Staff (Draft)
Army Training and Evaluation Program (ARTEPs)	
71-3-MTP	Mission Training Plan for the Heavy Brigade Command Group and Staff

Figure D-4. Excerpt from References component of BF 18 FA.

4) Identification of techniques and useful training information. As part of the task selection process and the planning of the training event, trainers can refer to the Lessons Learned component. This component identifies lessons learned extracted from the CALL publications. This component also provides information not necessarily contained in the applicable doctrinal references but determined to be relevant to training of the function based on performance history of brigades at the CTCs. In other cases, lessons learned at CTCs may provide a clearer definition of how tasks should be performed and the conditions under which they must be performed. An excerpt from that component of the BF 18 FA is shown in Figure D-5.

<p>5. The brigade commander issues initial planning guidance.</p>
<p>LL - Determine the amount of planning guidance the staff requires to develop the plan. [CALL Newsletter No. 93-3: The Battalion and Brigade Battle Staff, p. 9]</p>
<p>LL - Do not suppress the staff's ability to plan by providing excessive planning guidance. [CALL Newsletter No. 93-3: The Battalion and Brigade Battle Staff, p. 9]</p>
<p>LL - Sketch the initial concept of the operation for the staff. [CALL Newsletter No. 93-3: The Battalion and Brigade Battle Staff, p. 9]</p>

Figure D-5. Excerpt from Lessons Learned Integrated into the Task List component of BF 18 FA.

b. Selecting the Training Audience. After determining which tasks must be trained, trainers should next identify the training audience. The Key Participants by Task component of the BF FA supports that analysis. This component, based on the unit's TO&E, specifies the participants required to perform the tasks selected for training. One potential result of this review is that trainers may have to coordinate (through the appropriate commanders) with external units to have a specific special staff member participate in the training event. Figure D-6 depicts an example of that component of the BF 18 FA.

<p><u>Tasks</u></p>
<p>5. The brigade commander issues initial planning guidance.</p>
<p><u>Participants</u></p>
<p>Bde Cdr, Bde XO, Bde CSM, Bde S2, DS MI Co Cdr, Bde S3, Bde S3-Air, Bde S3 Opns Sgt, CMLO, FSCoord, FSO, Engr Bn Cdr, ABE, ADLO, AVLO, ALO, Bde S1, Bde Chaplain, Bde Surgeon, MP Plt Ldr, Bde S4, BSO, Bde HQ Co Cmdt, Bde S5 (if assigned)</p>

Figure D-6. Excerpt from Key Participants by Task component of BF 18.

c. Identifying Task Training Sequences and Products To Support Training. Unit trainers must also decide which products and information sources must be replicated or emulated to introduce external stimuli to the training events. The Flow Charts and Key Inputs and Outputs components help determine that information.

The flow charts are used to determine: (a) the flow of tasks during each battle phase; (b) vertical task linkages (to higher and lower echelon units); (c) horizontal task linkages (to tasks in other BFs for the echelon being analyzed); and (d) information input and output which affect relevant tasks. The flow charts provide a graphical description of tasks as they are sequenced within the framework of the battle phases. Although the sequencing of tasks throughout each battle phase is intended to reflect the flow of tasks, tasks may be performed concurrently or may interact with preceding or subsequent tasks.

The Inputs section of the Key Inputs and Outputs component contains critical information, organized by the doctrinal product or means used to communicate it, required by participants to achieve the purpose of the BF. The information and products described must be replicated to drive training events. The Lessons Learned Integrated into the Task List component can also support identification of conditions to be replicated.

The Outputs section of the Key Inputs and Outputs component describes information which results from the performance of the BF tasks. The Outputs should be covered by performance standards and should usually be covered during the after action review (AAR). An excerpt from the Key Inputs and Outputs component of the BF 18 FA is shown in Figure D-7.

KEY INPUTS**D - 4 GUIDANCE AND INFORMATION FROM THE DIVISION
COMMANDER AND STAFF.**

- a. Division commanders verbal or written guidance.
- b. Operational situation reports (OPSITREPs).
- c. Periodic personnel report (PPREPT).
- d. Periodic intelligence report (PERINTREP).
- e. Periodic operation report (PEROPRPT).
- f. Periodic logistics report (PERLOGRPT).
- g. Periodic civil affairs report (PERCARPT).
- h. Engineer reports.
- i. Field artillery reports.
- j. Air defense artillery reports.
- k. Other reports of planning or critical combat information of interest to the brigades.

KEY OUTPUTS**Bde - 3 BRIGADE WARNING ORDER**

- a. Mission, intent, and CCIR of brigade commander.
- b. Graphics.
- c. Types of fire support munitions available, including CSR and RSR.
- d. Enemy situation.
- e. Assets available for collection of information and intelligence.
- f. Task organization.

Figure D-7. Excerpt from Key Inputs and Outputs component of BF 18 FA.

d. Determining Prerequisite Training Tasks. If units are to obtain full benefit from training, participants must have previously achieved a level of proficiency in the individual and collective tasks required to enable safe and effective training of the selected tasks. Identification of such prerequisite tasks is accomplished by analyzing the Gate Tasks component. Trainers use this information to provide focus for individual training, subordinate echelon collective training, and staff training. An excerpt from the Gate Tasks component for the BF 1 FA contained in this research product is shown in Figure D-9.

5. The brigade commander issues initial planning guidance.**S2**

[STP 34-35II-MQS, Intelligence]

- Conduct situation development [01-3381.01-4016].

Officer Common Tasks:

[STP 21-II-MQS, Common Tasks]

- Brief to Inform, Persuade, or Direct [01-9007.01-0250]
- Communicate effectively as a commander or staff officer [03-9001.12-0003]

NCO Common Tasks for: All Primary and Special Staff NCOs

[STP 21-24-SMCT, Common tasks]

- Prepare situation report [SITREP] [071-332-5022].
- Prepare a strip map [551-721-3359].
- Prepare an operation overlay [071-332-5000/ 71-3-3002[2] MTP 71-3].
- Conduct operations security [OPSEC] procedures [113-573-0002].
- Integrate risk management into mission [850-001-4001].

[ARTEP 71-3-MTP]

- Perform duties in a tactical operations center or admin/log command post [7-1-3904/3036].
- Analyze tactical mission statement [ARTEP 71-3-MTP, Task 71-3-3001].
- Prepare plans/orders/annexes IN ACCORDANCE WITH FM's 71-2 and 101-5 [7-1-3904[9] / 71-3-3002].
- Prepare operational journals [ARTEP 71-3-MTP, Task 71-3-2006[2]].
- Advise and assist staff on elements of BOS that support/impact their staff function [ARTEP 71-3-MTP, Task 71-3-0001].
- Maintain the current situation (71-3-3003).

Figure D-8. Excerpt from Gate Tasks component of BF 18 FA.

Training Developers

The TRADOC service schools (proponents) develop training materials to guide individual and collective training. Training development is conducted within the framework of the systems approach to training. The BF FAs support the systems approach for collective training by identifying not only the tasks for each type of unit, but also horizontal and vertical relationships within each BOS, relationships among BOS, and relevant details about the relationships. The descriptions of interrelationships, which describe the scope of required synchronization plus details about tasks and supporting tasks, provide training developers with information about the content of training which they are supporting.

Within TRADOC, current training development supports Force XXI. The BF FAs are especially germane to the WARFIGHTER XXI (collective) emphasis. The information in each BF FA can be applied within each of the five WARFIGHTER XXI components:

- Standard Army Training System (SATS)
- TSPs
- TADSS
- Standard After Action Review System (STAARS)
- Army Training Digital Library (ATDL)

1. Standard Army Training System

SATS is a computer-based software system that automates training management doctrine. The most direct connection of BF FAs to SATS is through the Combined Arms Training Strategy (CATS). This is the mechanism for establishing long-range and short-range unit training strategies. Each CATS identifies tasks, drills and exercises, TADSS, and resources to support training for each unit type. BF FA components help developers identify tasks to be addressed by the strategy; the FAs are especially useful for identifying staff tasks that are not currently included in ARTEP-MTPs. In addition, BF FAs directly support two elements of the CATS--Training Unit Audience and Prerequisite Training Gates. Training developers can extract information about the audience for training from the Key Participants by Task component. They can find prerequisites for the tasks in the Gate Tasks component. Figure D-9 shows extracts from the CATS for the Armor Battalion Task Force that were based on the BF FAs for the battalion task force.

Training Unit Audience	Prerequisite Training Gates
MOVEMENT TO CONTACT	
Full TF, including Slice (includes FSO/FSE, CEWI Assets, Engineer, ADA, TACP, TF Combat/Field Trains (BSA))	TF Command Posts, Staff and Slice (Attached units, staff elements, and LNOs) - Assessed at "T" level task proficiency in the performance of BOS functions and supporting tasks: 7-1-3003, 4, 5, 6, 7, 8, 9, 14, 15, 18, 19, 21, 22, 23 24, 27. . .

Figure D-9. Extract from CATS for battalion task force.

2. Training Support Packages

A TSP for collective training integrates training products, materials, and information necessary to train one or more tasks. BF FAs support development of unit preparation materials,

tactical materials, and trainer materials. Examples of how the components can contribute to development of TSPs include:

- The Task Lists component or Tasks Organized by Outcomes component can be a useful first draft for a training and evaluation outline. Since both lists may include tasks that are not explicitly described in ARTEP-MTPs, they are especially valuable in designing staff training.
- Training developers can augment the training and evaluation outline by providing tactics, techniques, and procedures drawn from Lessons Learned Integrated into the Task List component.
- Several components work together to specify conditions that must be replicated for realistic training. The Flow Charts and Key Participants by Task components show the type of horizontal and vertical interactions that should be built into the scenario. The Task Lists and Key Inputs and Outputs components describe the scope of those interactions. The inputs and outputs can be especially useful in packaging required information to train particular tasks.
- In addition to setting out the conditions, the Purpose and Outcomes and Key Inputs and Outputs components can be the basis for building “A Way” demonstrations of how the various units, sections, and individuals are synchronized during the operation and what results the event/exercise should produce.
- The Purpose and Outcomes component can be a guide for organizing an AAR. Once an OC identifies an outcome to be sustained or improved, the Tasks Organized by Outcomes component can be used to identify particular tasks and supporting tasks to address in the AAR.

3. Training Aids, Devices, Simulators, and Simulations

BF FAs support TADSS development by defining requirements in terms of tasks which should be performed. In other words, the BF FAs describe the “what” of training so that TADSS developers can develop the “how.” The FAs are especially valuable for specifying interactions between echelons and among units. Three components give such information: Flow Charts, Tasks Linked to Other BF/Units, and Key Participants by Task.

4. Standard After Action Review System

STAARS will be linked to live, virtual, and constructive exercises and operations with the intent of translating lessons learned into leader development and collective training concepts, methods, and strategies. Since BF FAs structure assessments at successively precise levels (mission, BOS, BF, outcome, and task), they would be well suited to an automated feedback system. The BF FAs can also provide a useful level for aggregating CTC-based lessons learned

between the task and BOS levels. In the same way that the Purpose and Outcomes component can facilitate AARs by CTC OCs, the information in that component can structure lessons learned.

5. Army Training Digital Library

The ATDL is a repository of digital information related to training. BF FAs are compatible with ATDL formats and some FAs have been partially formatted into the Automated Systems Approach to Training. ATDL makes it possible to share the information from BF FA components with commanders in the field through the interactive electronic “library without walls” that provides digitized access to training information. In addition, the BF and outcome structure could be useful in organizing task-related information within ATDL.

Appendix E

ACRONYMS AND ABBREVIATIONS

This component identifies the acronyms used by the authors in the function analysis. Acronyms were derived from relevant doctrinal publications.

A	1SG	first sergeant
	2IC	second in command
	A2C2	Army airspace command and control
	AAR	after-action review
	ABE	assistant brigade engineer
	ACA	airspace coordination area
	ADA	air defense artillery
	ADC	area damage control
	AFATDS	advanced field artillery tactical data system
	AG	adjutant general
	AGM	attack-guidance matrix
	AI	area of interest
	A/L	administrative/logistics
	ALO	air liaison officer
	ALOC	administration and logistics operation center
	AN	author note
	ANGLICO	air and naval gunfire liaison company
	AO	area of operations
	ARI	Army Research Institute
	ARTEP	Army Training and Evaluation Program

	ASL	authorized stockage list
	ASP	ammunition supply point
	ASR	alternate supply route
	ATC	air traffic control
	ATDL	Army Training Digital Library
	ATI	artillery target intelligence
	ATO	air tasking order
	ATP	ammunition transfer point
	AWOL	absent without leave
	AXP	ambulance exchange point
B	BAO	battalion/brigade ammunition officer
	BDA	battle damage assessment
	Bde	brigade
	BF	Battlefield function
	BMO	battalion maintenance officer
	Bn	battalion
	BOC	battery operations center
	BOS	battlefield operating system(s)
	BSA	brigade support area
	BSOC	battalion support operations center
	Btry	battery

C	C2	command and control
	C3	command, control, and communications
	C3I	command, control, communications, and intelligence
	CALL	Center for Army Lessons Learned
	CAS	close air support
	CCF	critical combat function(s)
	CCIR	commander's critical information requirements
	Cdr	commander
	CI	counterintelligence
	CL	class
	CL IV	construction and barrier material
	CL V	ammunition
	CL VIII	medical material
	CL IX	repair parts and components
	CMLO	chemical officer
	CMO	civil-military operations
	Co	company
	COA	course of action
	COLT	combat observation lasing team
	COMSEC	communications security
	CONOPS	continuous operations
	CP	command post
	CSM	command sergeant major

	CSR	controlled supply rate
	CSS	combat service support
	CTC	combat training center
D	DAO	division ammunition officer
	DIVARTY	division artillery
	DMMC	division material management center
	DP	decision point
	DPICM	dual-purpose, improved, conventional munitions
	DS	direct support
	DST	decision support template
	DTDD	Directorate of Training Development Doctrine
	DTTP	doctrine, tactics, techniques, and procedures
E	EA	engagement area
	EEFI	essential elements of friendly information
	Engr	engineer
	EPW	enemy prisoner(s) of war
	ETAC	enlisted terminal attack controller
	EW	electronic warfare
F	FA	field artillery
	FAC	forward air controller
	FARP	forward arming and refuel point

FASCAM	family of scatterable mines
FASP	field artillery support plan
FCT	firepower control team
FDC	fire direction center
FDO	fire direction officer
FEA	front end analysis
FED	forward entry devices
FIST	fire support team
FM	field manual
FN	field note
FO	forward observer
FORSCOM	U.S. Army Forces Command
FPF	final protective fire
FRAGO	fragmentary order
FS	fire support
FSB	forward support battalion
FSCL	fire support coordination line
FSCM	fire support coordinating measure
FSCoord	fire support coordinator
FSE	fire support element
FSEM	fire support execution matrix
FSO	fire support officer

G	GPS	global positioning system
	GS	general support
	GSR	general support-reinforcing
H	HHB	headquarters and headquarters battery
	HPT	high payoff targets
	HPTL	high payoff target list
	HQ	headquarters
	HSS	health service support
I	IFSAS	improved fire support automation system
	IG	inspector general
	intel	intelligence
	INTSUM	intelligence summary
	IPB	intelligence preparation of the battlefield
	IR	information requirements
	ITTBBST	Innovative Tools and Techniques for Brigade and Below Staff Training
J	JAAT	joint air attack team
K		
L	LAN	local area network
	LD	line of departure

	LL	lessons learned
	LNO	liaison officer
	LOGPAC	logistics package
	LP	listening posts
	LRP	logistics release point
M	MCOO	modified combined obstacle overlay
	MDMP	military decision-making process
	MEDEVAC	medical evacuation
	met	meteorology
	METL	mission essential task list
	METT-T	mission, enemy, terrain, troops, and time available
	MIJI	meaconing, intrusion, jamming, and interference
	MOPP	mission-oriented protective posture
	MOS	military occupational specialty
	MP	military police
	MSB	main support battalion
	MSC	major subordinate command
	MSR	main supply route
	MTP	mission training plan
	MV	muzzle velocity
	MWR	morale, welfare, recreation
N	NAI	named area of interest

	NBC	nuclear, biological, and chemical
	NBCWRS	NBC warning and reporting system
	NCS	net control station
	NFA	no fire area
	NGLO	naval gunfire liaison officer
	NMC	nonmission capable
	NSF	naval surface fires
	NTC	National Training Center
O	OB	order of battle
	OC	observer-controller
	OEG	operational exposure guide
	O&I	operations and intelligence
	OP	observation post
	opns/(ops)	operations
	OPORD	operations order
	OPSEC	operations security
	OPSITREP	operational situation report
P	PA	physicians assistant
	PADS	position azimuth determining system
	PERCARPT	periodic civil affairs report
	PERINTREP	periodic intelligence report

	PERLOGRPT	periodic logistic report
	PEROPRPT	periodic operation report
	PERSTATREP	personnel status report
	PGM	precision guided munitions
	PIR	priority intelligence requirements
	PLL	prescribed load list
	PM	provost marshal
	POL	petroleum, oils, and lubricants
	PPREPT	periodic personnel report
	PSNCO	personnel services non-commissioned officer
	PSYOP	psychological operations
R	R&S	reconnaissance and surveillance
	RACO	rear area combat operations
	RAP	rocket assisted projectile
	RDO	radar deployment order
	RFL	restrictive fire line
	ROE	rules of engagement
	ROM	refuel-on-the-move
	RSO	reconnaissance and survey officer
	RSOP	reconnaissance, selection, and occupation of position
	RSR	required supply rate
S	S1	adjutant/personnel officer, brigade and battalion staff

S2	intelligence officer, brigade and battalion staff	
S3	operations and training officer, brigade and battalion staff	
S4	supply/logistics officer, brigade and battalion staff	
SALT	supporting arms liaison team	
SALUTE	size, activity, location, unit, time, equipment	
SATS	Standard Army Training System	
SEAD	suppression of enemy air defenses	
sgt	sergeant	
SIR	specific information requirements	
SITREP	situation report	
SIT TEMP	situation template	
SJA	Staff Judge Advocate	
SME	subject matter experts	
SO	signal officer	
SOI	signal operating instructions	
SOP	standing operating procedures	
SOR	specific orders and requests	
SPOTREP	spot report	
STAARS	standard after action review system	
STP	soldier's training publication	
T	TA	target acquisition; task analysis
	TAC	tactical; tactical command post

TAC CP	tactical command post
TACFIRE	tactical fire direction system
TACSOP	tactical standing operating procedure
TADSS	training aids, devices, simulators, and simulations
TAI	targeted area of interest
TEWT	tactical exercise without troops
TF	task force
Tm	team
TOC	tactical operations center
TOE	tables of organization and equipment
TPL	time-phase line
TRADOC	U.S. Army Training and Doctrine Command
TRP	target-reference point
TSOP	tactical standing operating procedures
TSP	training support package.
TTP	tactics, techniques, and procedures
U	
UAV	unmanned aerial vehicle
UCMJ	Uniform Code of Military Justice
UMCP	unit maintenance collection point
USAARMC	United States Army Armor Center
USAF	United States Air Force
USAFAS	United States Field Artillery School

USMC United States Marine Corps

USN United States Navy

V

W WAN wide area network

WARNO warning order

WCS weapons control status

WSRO weapons system replacement operations

X XO executive officer

Y

Z